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ABSTRACT

During the past reporting period the curriculum materials for the mentally retarded section of Project MORE (Mediated Operational Research for Education) has continued its work on development and dissemination. Technology on the programs is advancing to a degree where production on several of the programs is imminent. The major activities of the project component for improved instructional technology for articulation therapy have been validated for use in public schools. The print/production component of media supported services has been involved in the preliminary and final mediation on several Project MORE programs. In addition to their regular duties, the media editors participated in the testing sessions on the programs to which they were assigned. Moreover, the media staff worked on the stimulus shift articulation program, workshop materials, the dissemination of working papers, and additional kinescopes of program development activities. Also during this reporting period, two of Project MORE's major systems were subjected to systems analysis. As a result, structures on staff performance and educational products were modified. (WCM)

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PROJECT NO. 26-2364

GRANT NO. OEG-0-71-0449 (607)

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Project MORE

Programmatic Research to Develop and Disseminate Improved Instructional Technology for Handicapped Children

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Richard L. Schiefelbusch and James R. Lent

UNIVERSITY OF KANSAS BUREAU OF CHILD RESEARCH

Prepared for

DEPARTMENT of HEALTH, EDUCATION and WELFARE

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QUARTERLY PROGRESS REPORT

Project No. 26-2364
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PROGRAMMATIC RESEARCH TO DEVELOP AND DISSEMINATE IMPROVED INSTRUCTIONAL TECHNOLOGY FOR HANDICAPPED CHILDREN

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and
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Parsons, Kansas

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Name of Institution: The University of Kansas, Bureau of Child Research
and
The Parsons State Hospital and Training Center

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for the Handicapped
Division of Research

Title of Project: PROGRAMMATIC RESEARCH
TO DEVELOP AND DISSEMINATE
IMPROVED INSTRUCTIONAL TECHNOLOGY
FOR HANDICAPPED CHILDREN

1. Major Activities and Accomplishments During this Period
2. Problems
3. Significant Findings and Events
4. Dissemination Activities
5. Capital Equipment Acquisitions
6. Data Collection
7. Other Activities
8. Staff Utilization
9. Future Activities Planned for Next Reporting Period
10. Certification

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Signatures of Principal Investigators

Date

September 30, 1973
Date

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INTRODUCTION

Project MORE is directed toward the development of instructional programs aimed at specific behavioral deficits among handicapped children. The instructional programs are being: 1) empirically validated; 2) organized through the application of systems technology; 3) implemented by optimal, multimedia materials; and 4) disseminated in a way which assures immediate application in educational environments by virtue of their systematic nature and their multimedia format.

This Project is organized to accomplish these objectives through the use of Systems for organization, the Central Office for administrative support, Media for implementation, and through the two programmatic research projects: 1) Curriculum Materials for the Mentally Retarded, conducted by James R. Lent, Ed.D.; and 2) Research, Development, and Dissemination of Programs for Improved Instructional Technology for Articulation Therapy in Public Schools, conducted by James E. McLean, Ph.D., and Sandra Raymore. (Reports contained herein are referred to as LENT, McLEAN/RAYMORE, MEDIA, and BUDDE.)

1. MAJOR ACTIVITIES AND ACCOMPLISHMENTS DURING THIS PERIOD

During the period from June 1, 1973, to September 30, 1973, personnel in the Curriculum Materials for the Mentally Retarded portion of Project MORE have continued their development and dissemination of Project MORE materials. Technology on the programs is advancing to a degree where production on several of the programs is imminent. Figure 1 shows the status of each program as of September 30, 1973.

HAIR ROLLING PROGRAM. See Media/Dissemination for a report on the progress made in disseminating the Hair Rolling Program.

SHOWERING PROGRAM. Final testing has been completed on the Showering Program and the program is being prepared for final mediation. Several changes have been made in the program to correspond with the updated version of the Shower Song. The new song (see Quarterly Progress Report, May 31, 1973, Lent/Significant Findings and Events) was recorded on cassette tape and was tested during this period. Testing results were positive and the song is being prepared for final recording. The new song will be recorded with guitar accompaniment, instead of the full orchestration which was used in the first recording.

IRONING PROGRAM. During the last reporting period the Ironing Program was thoroughly revised, condensed into six units, and testing was started with six students. During this reporting period, both the revisions and testing of the students was completed. The program will be ready for final mediation in the near future.

FACE SHAVING PROGRAM. Final mediation on the Face Shaving Program was completed during this reporting period. The program is ready to be printed and disseminated.

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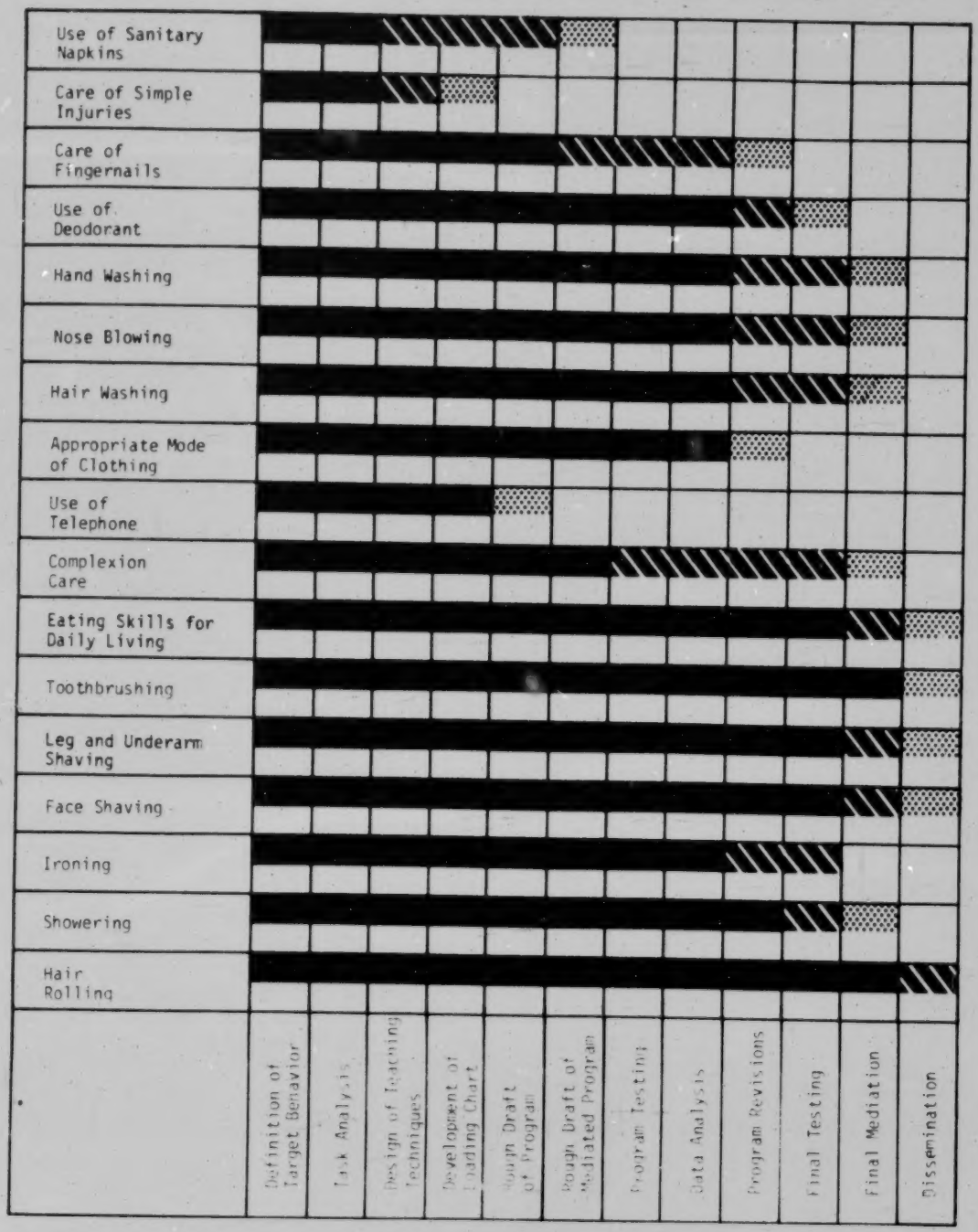
Figure 1

Program design and development stages as of September 30, 1973, on 17 programs of the Curriculum Materials for the Mentally Retarded portion of Project MORE.

Completed Program Design and Development



LEG AND UNDERARM SHAVING PROGRAM. Final mediation on the Leg and Underarm Shaving Program was completed during this reporting period. The program is ready to be printed and disseminated.

TOOTHBRUSHING PROGRAM. Printing on this program was completed in July and the program is currently being disseminated through the Extramural Independent Study Center at the University of Kansas (see Media/Dissemination).

EATING SKILLS FOR DAILY LIVING PROGRAM. Final mediation on the Eating Skills for Daily Living Program was completed during this reporting period. The program is ready to be printed and disseminated.

COMPLEXION CARE PROGRAM. During this reporting period the testing for the Complexion Care Program was completed, the data was analyzed, and program revisions were made before final testing. Program revisions included shortening the program by combining the sections for normal skin and oily skin. The program is ready for final mediation.

USE OF TELEPHONE PROGRAM. This program is being completely rewritten due to the inability of nonstaff trainers to adequately follow the complex branching system used in the original version.

APPROPRIATE MODE OF CLOTHING PROGRAM. This program is currently being revised and final testing of the program will begin during the next quarter.

HAIR WASHING PROGRAM. Program revisions were made on the Hair Washing Program and final testing was completed during this reporting period. The program is ready for final mediation.

NOSE BLOWING PROGRAM. Program revisions were made on the Nose Blowing Program and final testing was completed during this reporting period. The program is ready for final mediation.

HAND WASHING PROGRAM. Program revisions were made on the Hand Washing Program and final testing was completed during this reporting period. The program is ready for final mediation.

USE OF DEODORANT PROGRAM. Program revisions are being made on the Use of Deodorant Program (see Lent/Problems and Lent/Significant Findings and Events).

CARE OF FINGERNAILS PROGRAM. During this reporting period the Care of Fingernails Program was mediated in rough draft form, the program was tested, and the data was analyzed. Program revisions are now being made in preparation for final testing.

CARE OF SIMPLE INJURIES PROGRAM. Design of the teaching technique for the Care of Simple Injuries Program was completed during this reporting period and a loading chart is currently being developed for the program.

USE OF SANITARY NAPKINS PROGRAM. After the teaching techniques and loading chart were developed for the Use of Sanitary Napkins Program, the rough draft of the program was written. The rough draft is being mediated and program testing will be started during the next reporting period.

WORKSHOP ACTIVITIES

Educating trainers through the workshop presentations continued during this reporting period. The workshops were based upon simulation activities by participants in the purposes and methods behind programs produced by Project MORE. These workshops used a format and materials similar to previous workshops.

A variation of this workshop was given June 7, 1973, in Toronto, Canada, at the staff development conference of the South Waterloo Association for the Mentally Retarded. A two-day presentation was given June 14 and 15 during a behavior modification conference at Elgin State Hospital in Elgin, Illinois.

Two workshop presentations were given in Texas in August. One was presented August 14 and 15 for the department of special education in Abilene. The second presentation was made August 21 to 23 at Veda Knox School, a school for trainable mentally retarded. The presentation was made to teachers, college students, and parents.

During this reporting period approximately 125 persons participated in workshop activities. The communications form included in the workshop package has proved most effective. Several participants have used it to establish further contact with Project MORE. A new evaluation sheet for workshop presentations has also proved a valuable information source for revisions in the workshop package.

2. PROBLEMS

During this reporting period four problematic issues have confronted the Project:

1. The relationship between trainer proficiency and program effectiveness;
2. The extent and complexity of data collection by the trainer;
3. The validity and effectiveness of the Use of Deodorant Program; and
4. The dissemination of Project MORE programs.

The first three issues are discussed in detail below. See Media/Dissemination for the issues pertaining to the dissemination of Project MORE programs.

TRAINER PROFICIENCY

Ideally, instructional programs should be tailored to suit specific trainer needs. Materials well-suited for one, however, may be useless for another. The Project, therefore, has aimed its products at a wide audience, i.e., trainers with various degrees of experience or education in teaching mentally retarded individuals. This approach ensures that more people will find the programs useful. A wide range of potential trainers with a wide range of characteristics will be able to use the programs effectively. Nonetheless, some combinations of trainer characteristics will be superior to others with regard to effective application of an instructional program. Stated very simply, the issue suggested by these considerations is: How "good" does the trainer have to be, and how "bad" can he be and still effectively use the program?

Field evaluation of programs has typically involved Project MORE staff members monitoring training sessions and collecting data while a nonstaff trainer teaches the program to a mentally retarded individual. Anecdotal references and subjective impressions regarding general training proficiency

and the trainer's adherence to program guidelines have been consistently, if not systematically, noted by the session observers. During this reporting period the Project staff decided to quantitatively measure training proficiency. A quantitative measure of training proficiency seemed to be useful in several ways:

1. Identifying which program components require strict adherence to program materials and which allow a more flexible "loose" approach by the trainer;
2. Permitting the revisions and emphasis of some program components on the basis of quantitative data on specific trainer characteristics (the program component may indeed work well, but no trainer seems to apply it);
3. Permitting statements concerning the "spread" of proficiency within which programs will be effective; and
4. Leading to possible inclusion of a training proficiency measurement instrument with every program.

A "Training Proficiency Scale" to meet these ends has recently been developed. It was designed for use with Project MORE programs and is currently being evaluated. Preliminary analysis of reliability data indicates that the developmental version is close to adoption as a useful instrument. A sample "Training Proficiency Scale" is shown in Figure 2. Definitive data on the reliability, validity, and overall utility of the scale will be reported in the next progress report.

DATA COLLECTION BY TRAINER

Evaluation of Project MORE programs involves collecting extensive session-by-session data, yielding information about the students' response to each level of the teaching strategy. Independent observation by two persons ensures reliability.

Figure 2

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Training Proficiency Scale [1]

Project MORE

Mediated Operational Research for Education

Purpose: To evaluate proficiency in using Project MORE Programs.

Instructions: For each item rate the trainer/teacher on the five point scale below.

Trainer_____

Student (s)_____

Rater_____

Program_____

Date_____

(1) does not do it

(2) seldom does it

(3) does it about half the time

(4) does it most of the time

(5) does it every time

(N/A) does not apply

BEHAVIOR	RATING
Preparation	
1. Arrives promptly and consistently for training sessions.	
2. Prepares room before training.	
3. Has appropriate materials available.	
4. Brings program to training session.	
5. Greets student before training.	
6. Gets student's attention before training.	
Teaching Procedures	
7. Trains one step at a time.	
8. Trains steps in designated sequence.	
9. Gives opportunity for occurrence of behavior before intervention.	
10. Provides verbal cues only when opportunity (#9) fails.	
11. Provides visual cues only if verbal cues fail.	
12. Provides physical assistance only when visual and verbal cues fail.	
13. Allows adequate time for behavior to occur after each procedure.	
14. Determines appropriateness of behavior using Program behavior definitions.	

BEHAVIOR	RATING
Reinforcement	
15. Uses an effective reinforcer.	
16. Provides verbal or physical reinforcement immediately.	
17. Gives verbal reinforcement enthusiastically.	
18. Gives physical reinforcement enthusiastically.	
19. Varies verbal and physical reinforcement.	
General	
20. Ignores inappropriate behavior not interfering with training.	
21. Handles inappropriate interfering behaviors enabling resumption of training.	
22. Speaks in clear understandable tone of voice.	
23. Uses visual and verbal prompts enthusiastically.	
24. Uses student's name	
25. Interacts courteously with students.	
26. Displays interest in students progress.	

Once programs are disseminated, however, the sophistication and complexity of program effectiveness and student progress measurement systems included with programs is limited. The data needs of the trainer are fewer and somewhat different than those of the program developer. Further, some forms of data collection may be too cumbersome and excessive from the standpoint of student progress measurement, but may act as effective cues for adequate adherance to program format. What kind of data collection systems are functional both from the standpoint of student progress measurement and program effectiveness?

In order to evaluate what kinds of data collection systems are functional for trainers of Project MORE programs, three basic approaches to data collection are currently being tested:

1. No data is collected by the trainer;
2. Only program steps performed correctly by the student are recorded by the trainer; and
3. The trainer records the response to every programed step and teaching strategy.

The dependent measure of these three variables is the trainer errors recorded and the Training Proficiency Scale score obtained by the trainers under the three conditions of the independent variable (i.e., data collection system).

While it may be argued that detailed data collection is a burden for the trainer and interferes with effective training, it is equally defensible that a structured data collection system may serve to cue, and hence facilitate, training procedures. Hopefully, this issue will be resolved following the data analysis and evaluation of training effectiveness under several measurement requirements. A report on this issue is anticipated during the next reporting period.

USE OF DEODORANT PROGRAM

Field studies of the Use of Deodorant Program have yielded unsatisfactory results (see Lent/Significant Findings and Events). Possible causes for these results may be:

1. A significant number of the subjects tested were diagnosed as below the "moderate" level of mental retardation;
2. A greater than normal turnover of trainers;
3. Lack of clear-cut decision points and criteria for choosing between applications of the spray or roll-on options of the program; and
4. Inefficient overall teaching procedure.

All of the above possible "causes" are the subject of analysis at the present time. During the next reporting period further development, revision, and evaluation of the Use of Deodorant Program will be conducted.

3. SIGNIFICANT FINDINGS AND EVENTS

Implementation procedures used in the two phases of program design and development (see Figure 3, Implementation Lattice) have continued to be applied successfully by the Curriculum Materials for the Mentally Retarded portion of Project MORE during this reporting period. In general terms, this represents the major findings and events of this period.

The events and findings marking significant progress for the 11 programs currently in the design and development phases are discussed below. Programs in stages of final mediation and dissemination stages are discussed in Lent/Major Activities and Accomplishments.

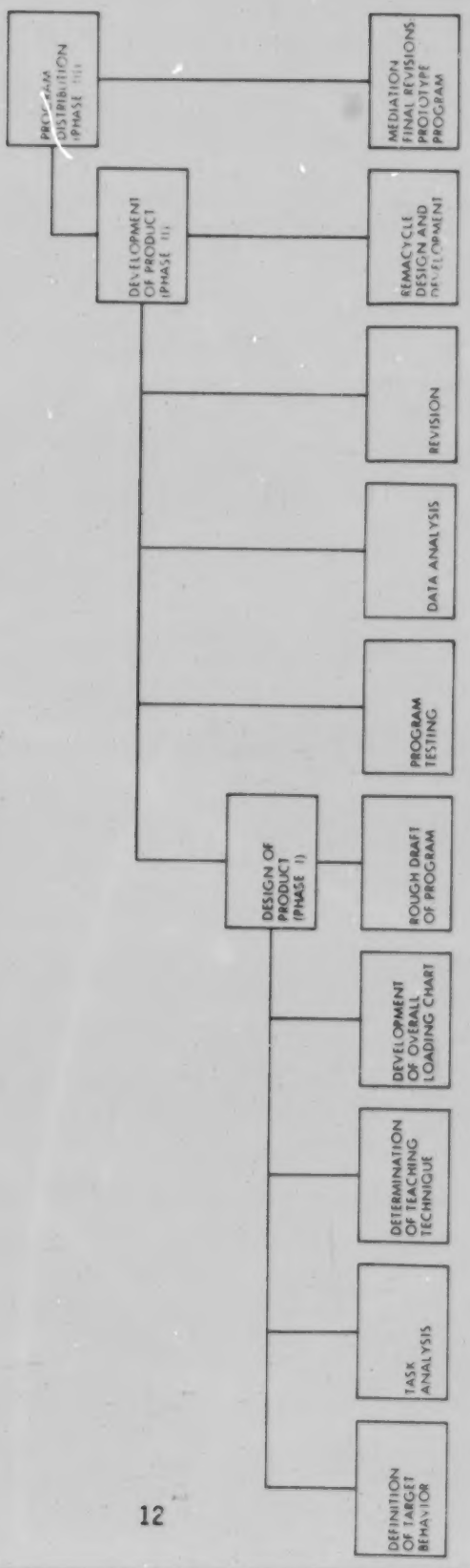
Field study data evaluation and program validation of the first five programs discussed below (Ironing, Complexion Care, Nose Blowing, Hair Washing, and Hand Washing), have permitted production of these five programs to move into the final mediation stages.

IRONING PROGRAM

The Ironing Program was reduced to include 95 programed behaviors as compared to 532 in the initial version of the program. The program materials include visual cues for each of the 95 behaviors. Four students were trained using this revised, six-unit Ironing Program. Pretest and posttest comparisons in terms of the percent of the behaviors mastered are shown in the data summary, Table A.

All but one subject (L.P.) progressed significantly in the acquisition of the behaviors comprising all six units, as reflected in this pre- and posttest comparison. Subject L.P. mastered 85 percent of the behaviors on the posttest for Units 1 and 2; on succeeding units her performance deteriorated. Reports from the trainer and notes recorded by the observer concur in indicating

Figure 3



IMPLEMENTATION LATTICE

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Data Summary Sheet

Project MORE
Mediated Operational Research for Education

PRE-POSTTEST DATA SUMMARY SHEET

(Raw Score/Percent)

PROGRAM: IRONING

NUMBER OF BEHAVIORS SCORED: 95 (Six Units)

Student	Unit	Pretest	Posttest
C.H.	1	0%	86%
	2	0%	93%
	3	0%	78%
	4	0%	82%
	5	0%	65%
	6	0%	100%
L.P.	1	0%	85%
	2	0%	85%
	3	0%	42%
	4	0%	18%
	5	0%	21%
	6	0%	0%
T.R.	1	0%	100%
	2	5%	100%
	3	0%	92%
	4	0%	76%
	5	10%	92%
	6	11%	100%
P.M.	1	5%	100%
	2	5%	100%
	3	10%	100%
	4	0%	96%
	5	0%	92%
	6	10%	100%

attentional problems with subject L.P. in the posttesting of Units 3 to 6. This finding clearly suggests that attentional variables have powerful effects on the effectiveness of program implementation. Instructions to the users of the Ironing Program point out the necessity to maximize attention, perhaps by means of reduced session duration and division of program instruction into smaller segments.

COMPLEXION CARE PROGRAM

Two field studies, data analysis, program evaluation, and program revisions have been completed in this reporting period. Field study data indicates the vailidity and general effectiveness of this program with mentally retarded individuals in the moderate range of mental retardation when used by nonprofessional trainers (e.g., high school and junior college students, basic aide trainees).

Multiple baseline data (see Lent/Data Collection) representing Complexion Care Program: Field Study I are shown in Figure 4. Points plotted represent the percent of behavioral subskills comprising complexion care which individual subjects were able to perform prior to (baseline) and following initiation of programed training. As is evident in Figure 4, all seven subjects in Field Study I achieved significant gains over baseline. Although there was variability in the number of required training sessions, all seven subjects achieved levels of performance of 90 percent.

Complexion Care Program: Field Study II yielded results, shown in Figure 5, comparable to those of Field Study I. One subject (K.H.) achieved performance levels which did not consistently exceed 50 percent. While this level is substantially superior to the baseline level, the effectiveness of the Complexion Care Program with this subject without supplemental training is questionable.

Figure 4

COMPLEXION CARE : FIELD STUDY I

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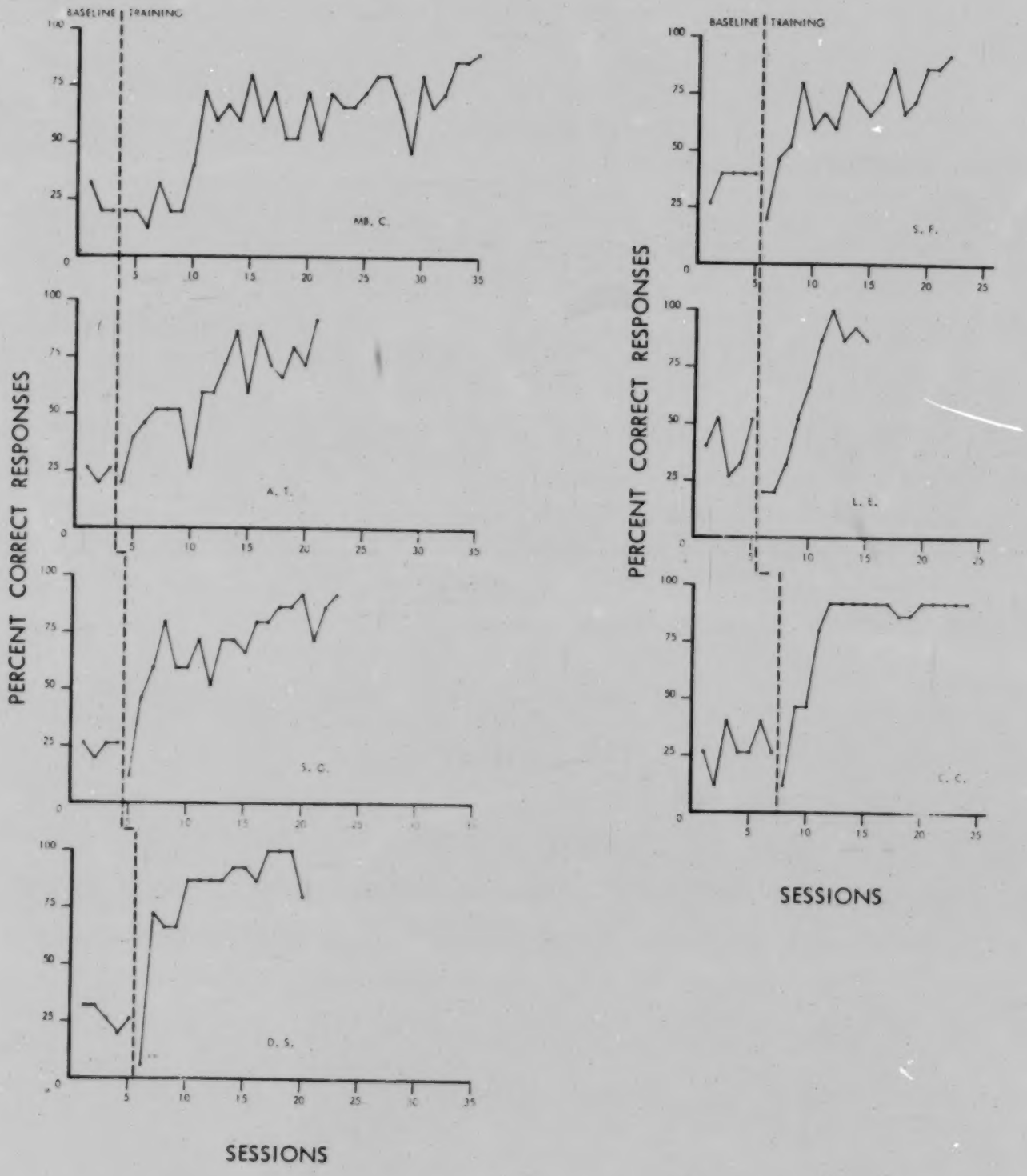

Figure 5

COMPLEXION CARE : FIELD STUDY II

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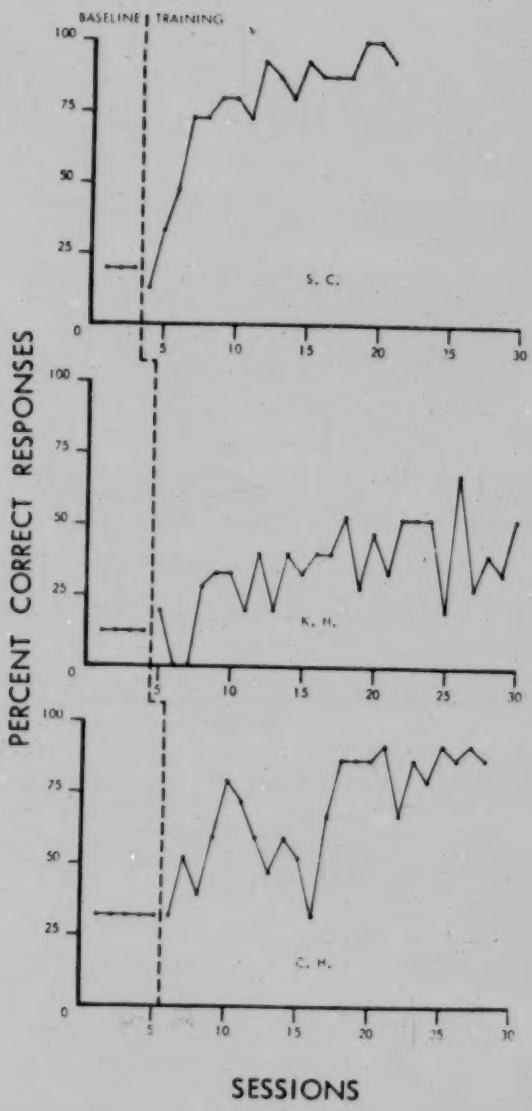

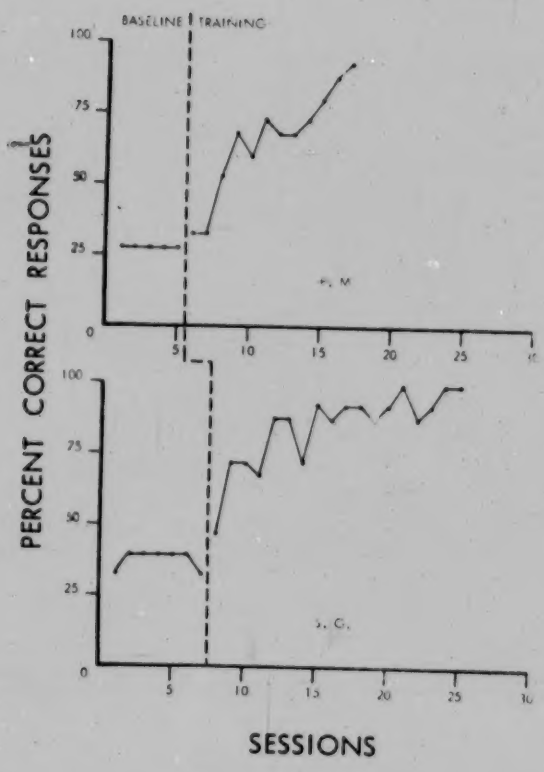

HAIR WASHING PROGRAM

Three field studies and program evaluations have been conducted with the Hair Washing Program. Three separate groups, totaling 14 severely and moderately retarded adolescent male and female individuals, have been trained by "non-professionals" (junior college students, basic aide trainees, etc.). Field study data indicates the general adequacy and effectiveness of the program and establishes program validity.

Hair Washing Program: Field Study I was conducted with seven subjects using a developmental version of the program containing 18 behavioral subskills. Multiple baseline data for those seven subjects are shown in Figure 6. All but subject V.L. made significant gains over baseline.

A revised version of the Hair Washing program was tested in Field Study II. Multiple baseline data for the four subjects in Field Study II are presented in Figure 7. Once again all but one of the subjects (M.G.) made substantial gains over baseline. Subject M.G. achieved above 50 percent of the behaviors in the last three days of training and appeared to be making steady, if not rapid, progress. Unfortunately, illness forced the termination of training sessions for the subject.

Hair Washing Program: Field Study III, shown in Figure 8, was undertaken to determine whether problems encountered in testing the program were due to the trainer. This third group was tested with another trainer using the revised program. Results of the field study indicated that two of the students, S.M. and R.W., achieved only 58 percent and 62 percent, respectively.

NOSE BLOWING PROGRAM

Nose Blowing Program: Field Study I and II were conducted with 11 subjects before the "repeat step" was expanded to include all five subskills

Figure 6

HAIR WASHING : FIELD STUDY I

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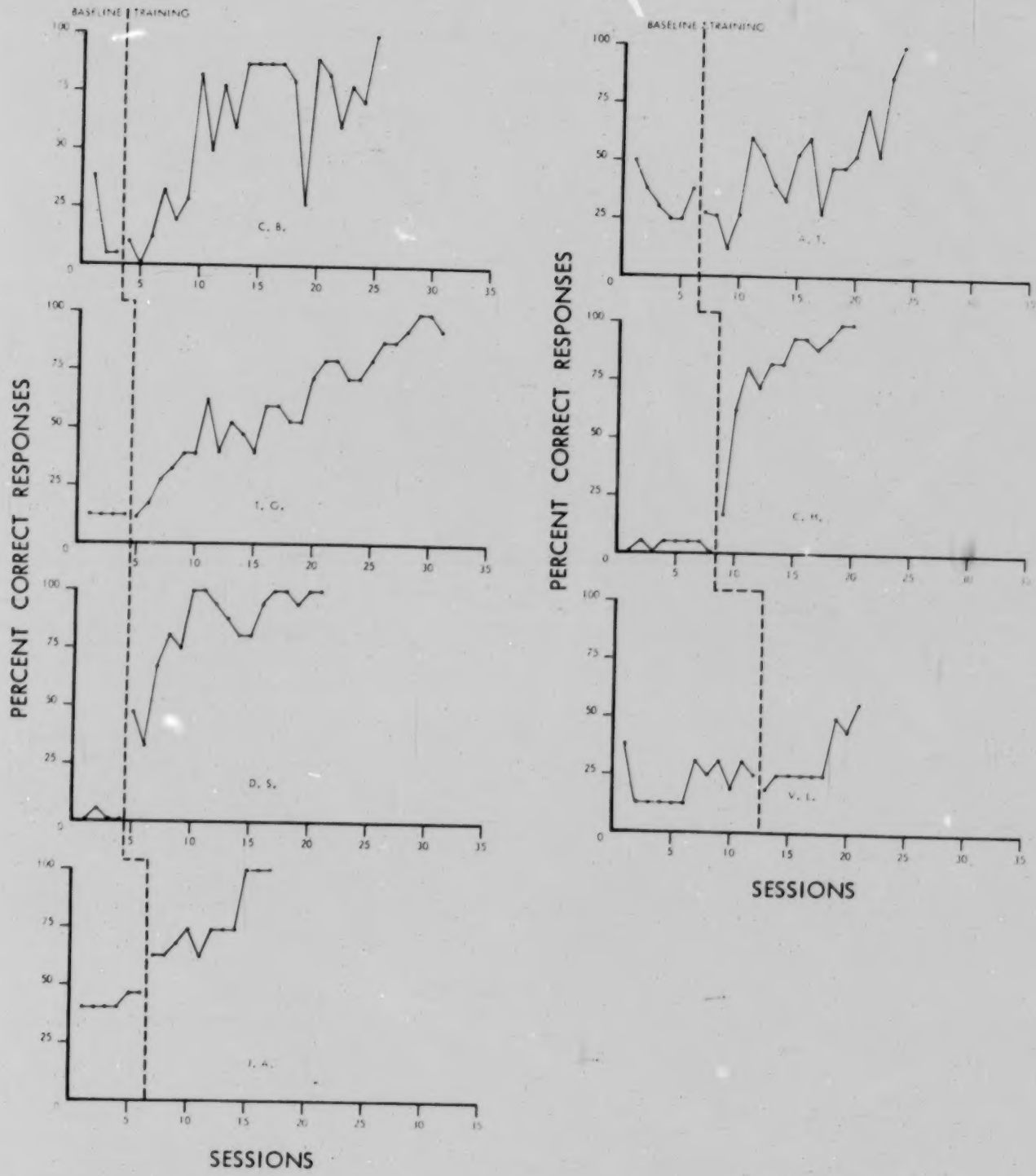

Figure 7

HAIR WASHING : FIELD STUDY II

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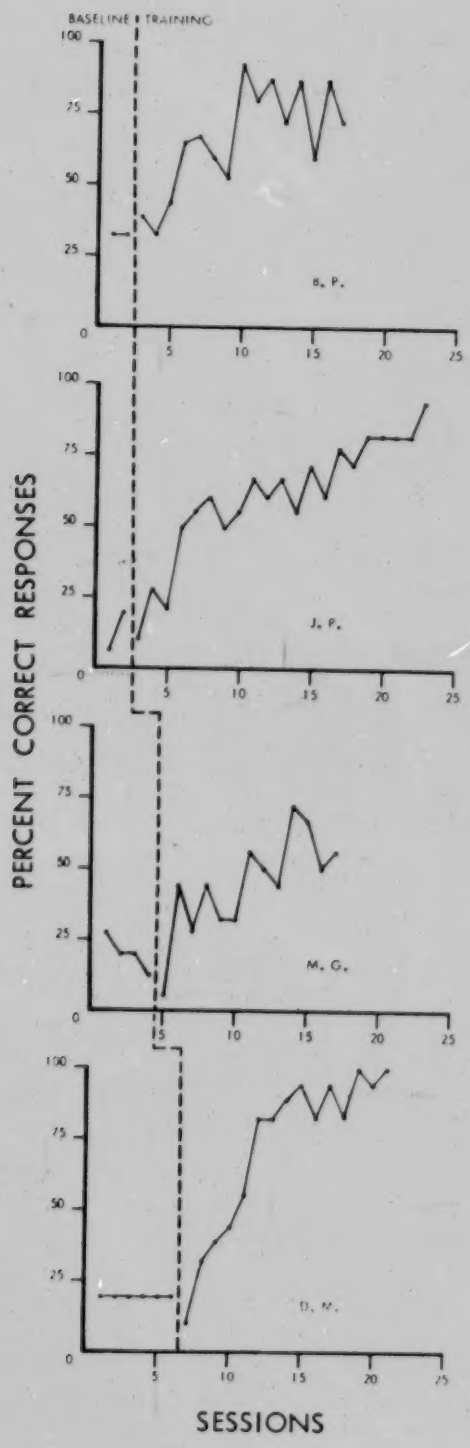

HAIR WASHING : FIELD STUDY III

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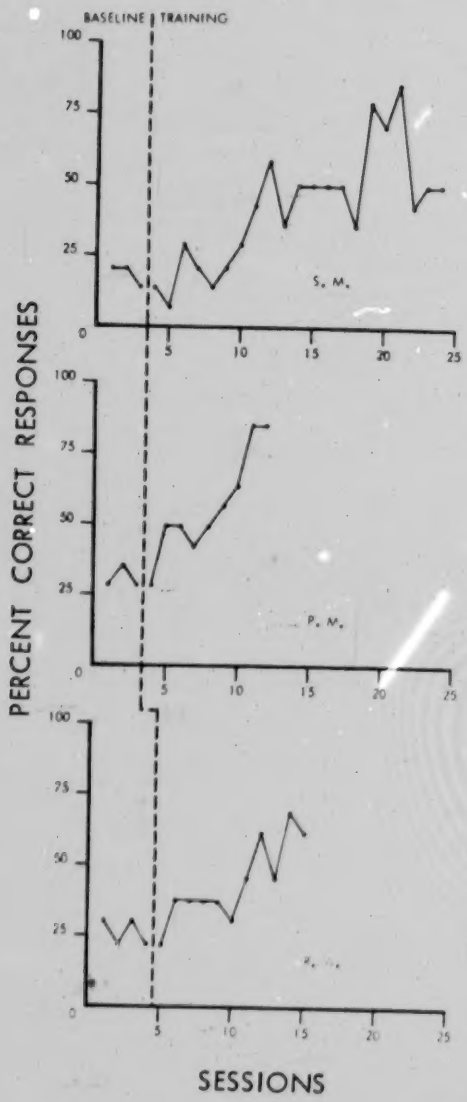

involving positioning, blowing, pinching, wiping, and folding. Once again all field testing and program validation was conducted with trainees who were severely and moderately retarded adolescents, and by trainers with no experience in teaching the mentally retarded. Multiple baseline data for Field Study I and Field Study II are shown in Figures 9 and 10, respectively. Only one subject in both studies failed to achieve a criterion of 90 percent correct responses. The failure of subject C.W. to achieve a higher level of performance can be at least partially attributable to trainer variables. That is, session observation indicated a high frequency of trainer deviation from program instruction.

Data from Nose Blowing Program: Field Study III are shown in Figure 11. Six subjects were tested using the expanded version of the program. Two subjects, D.G. and P.G., failed to make significant gains above baseline after some initial progress in the first three training sessions. Subject D.G. who was a profoundly to severely retarded subject, was also heavily medicated during training sessions to control seizures.

HAND WASHING PROGRAM

The second and third (final) field studies of the Hand Washing Program have been conducted and completed in this reporting period. Hand Washing Program: Field Study I tested a developmental version of the program with four subjects. Data representing their performance is shown in Figure 12.

The performance data of 12 subjects trained with the revised version of the Hand Washing Program in Field Studies II and III are shown in Figures 13, 14, and 15. Ten subjects out of the total trained using the revised program achieved substantial gains over baseline, responding at the 90 percent level or better on at least one day of training. Subject L.P. in Field Study II achieved approximately 75 percent of the required behaviors during the last

Figure 9

NOSE BLOWING : FIELD STUDY I

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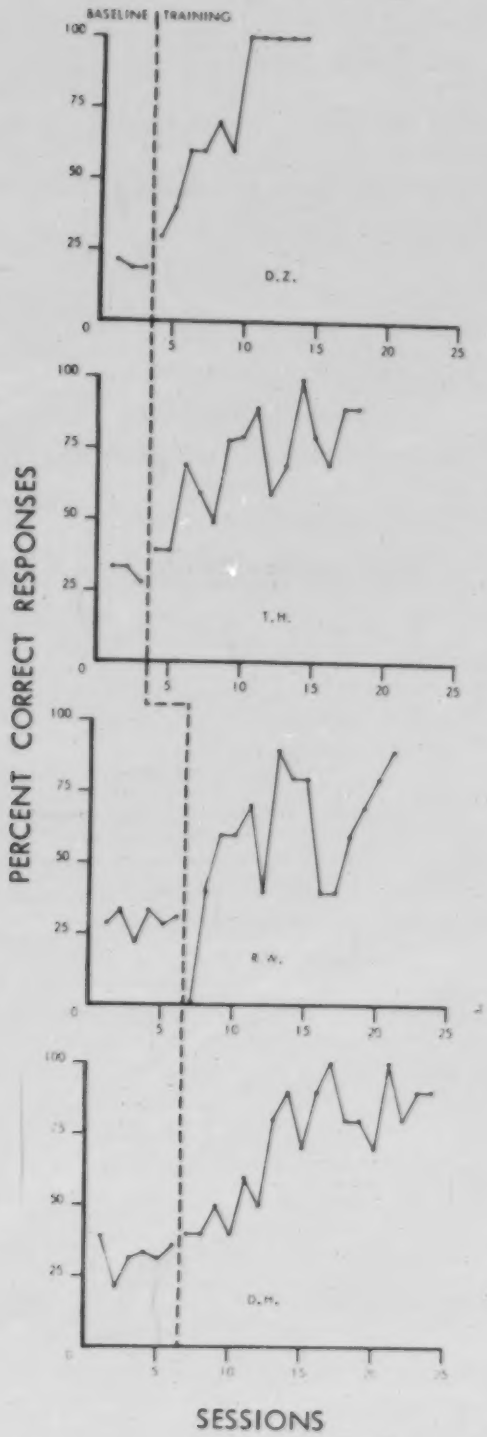

Figure 10

NOSE BLOWING : FIELD STUDY II

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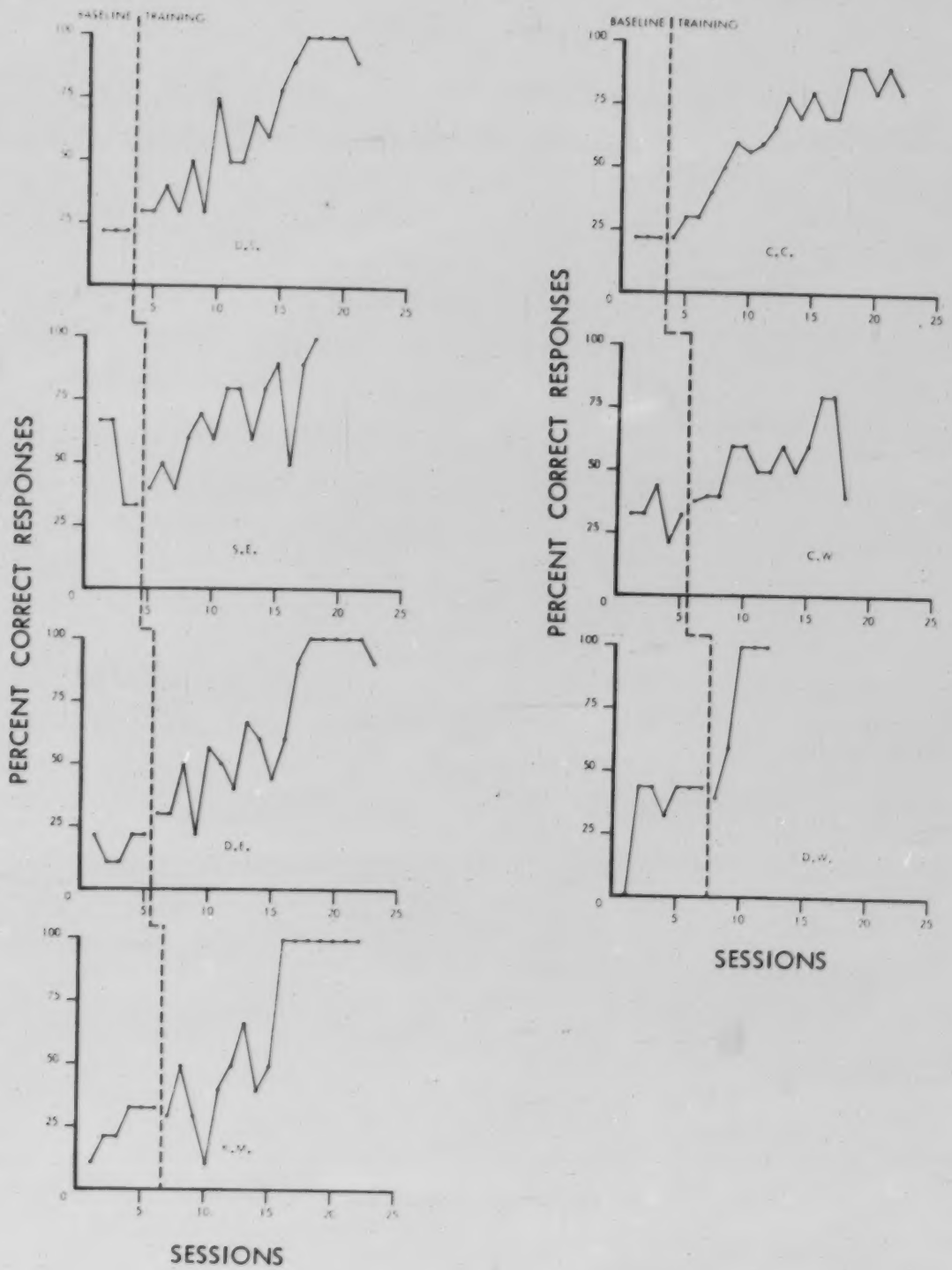

NOSE BLOWING : FIELD STUDY III

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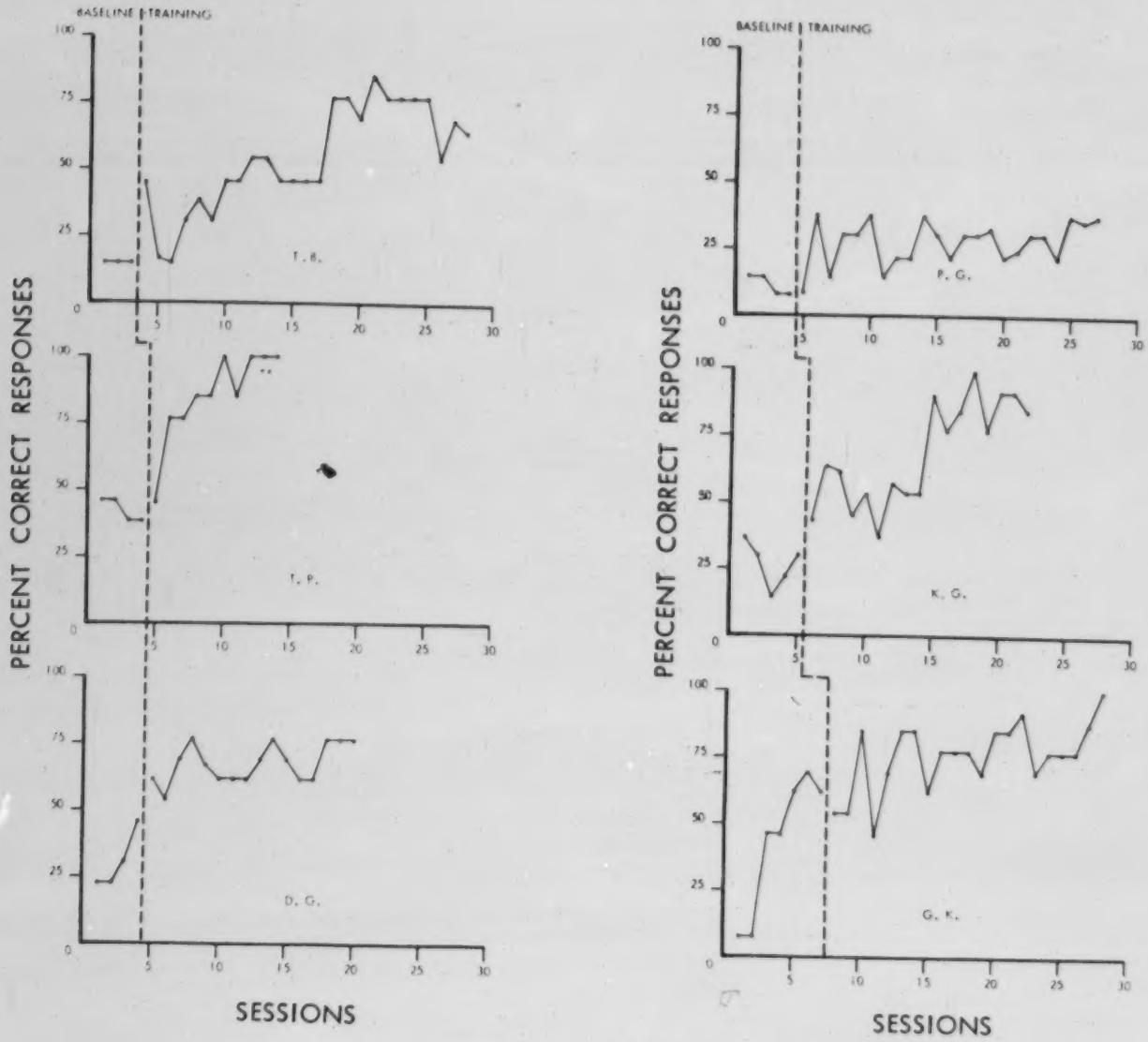

HAND WASHING : FIELD STUDY I

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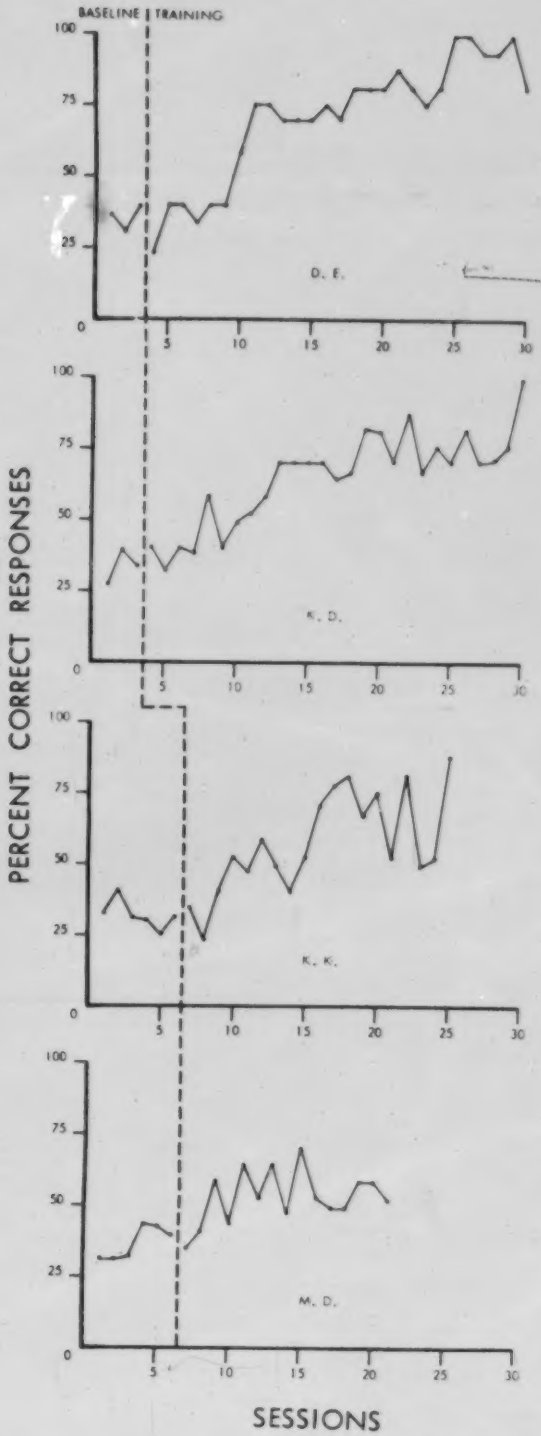

HAND WASHING : FIELD STUDY II

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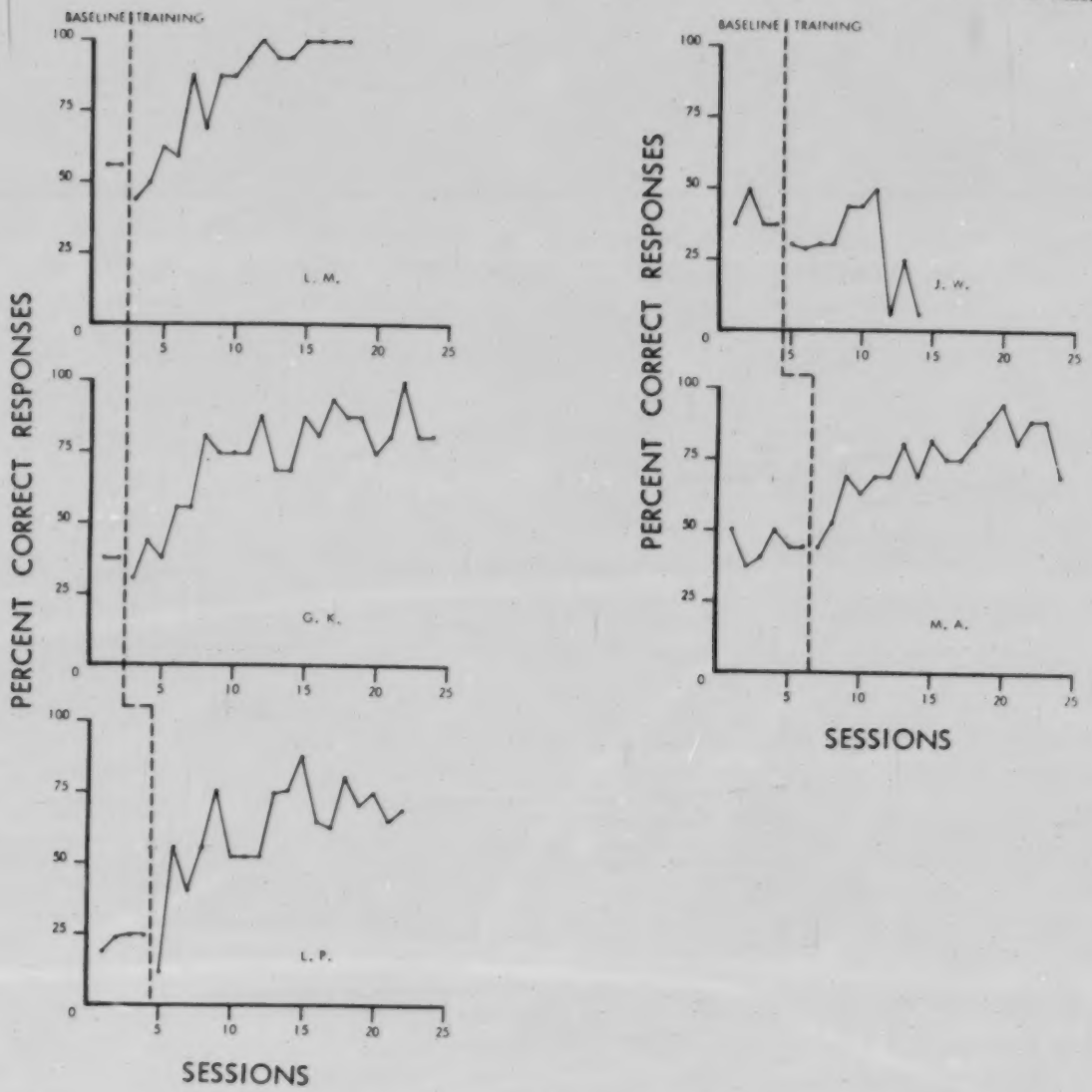

HAND WASHING : FIELD STUDY II

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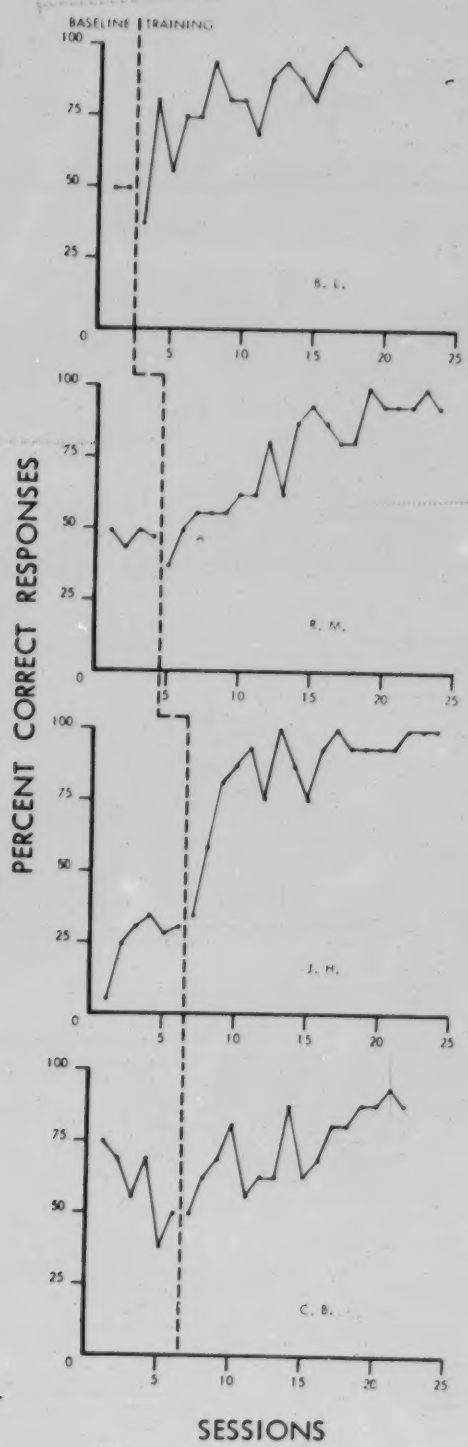

HAND WASHING : FIELD STUDY III

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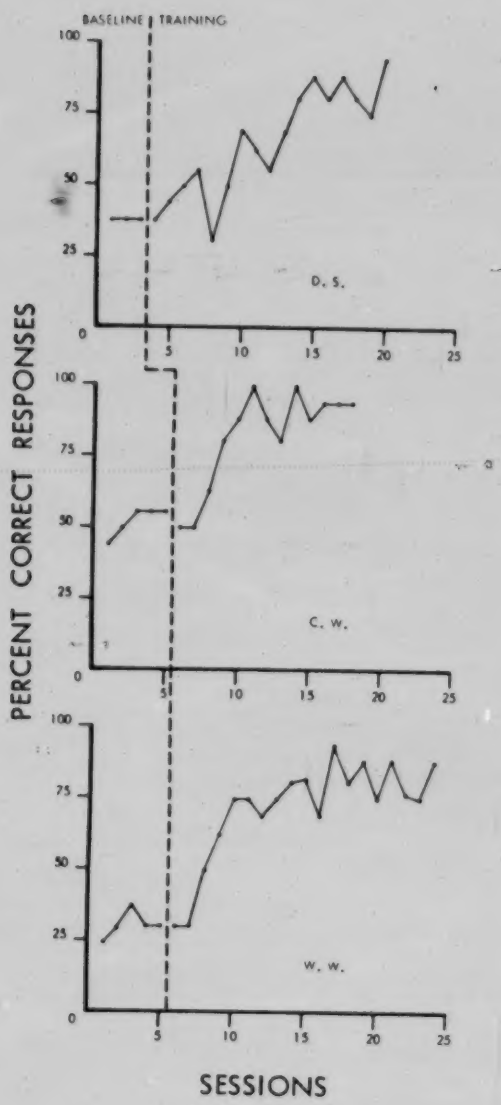

five days of training. Subject J.W. in Field Study II achieved the highest level of performance (i.e., 50 percent) on the seventh day of training. His performance deteriorated to the baseline level from there on. This performance can be attributed to factors extraneous to program variables such as high frequencies of truncated training sessions, injuries incurred prior to training, illness, and a host of other variables recorded by the session observer and trainer.

USE OF DEODORANT PROGRAM

The developmental version of the Use of Deodorant Program includes options for the use of spray or roll-on deodorant. The roll-on option was designed to be used with students experiencing difficulties in placing their fingers on the nozzle of a spray deodorant can.

Three field studies of the Use of Deodorant Progarm involving 19 subjects have been conducted. Only the data collected in the Use of Deodorant Program: Field Study III are presented in Figure 16. Inspection of the performance data of the eight subjects in this field study clearly demonstrates the overall ineffectiveness of the current developmental version of the program. Only one subject (R.G.) achieved an adequate level of performance, but only after the trainer used the roll-on option of the program.

These data, generally consistent with that of the first two field studies, dictated major revisions of the program and subsequent additional evaluation and validation. Program revisions are currently underway. Additional discussion of problems involving development of this program may be found in Lent/Problems.

CARE OF FINGERNAILS PROGRAM

The developmental version of this program included three sections: fingernail clipping, fingernail cleaning, and toenail clipping. Only the

Figure 16

Lent (3)

DEODORANT : FIELD STUDY III

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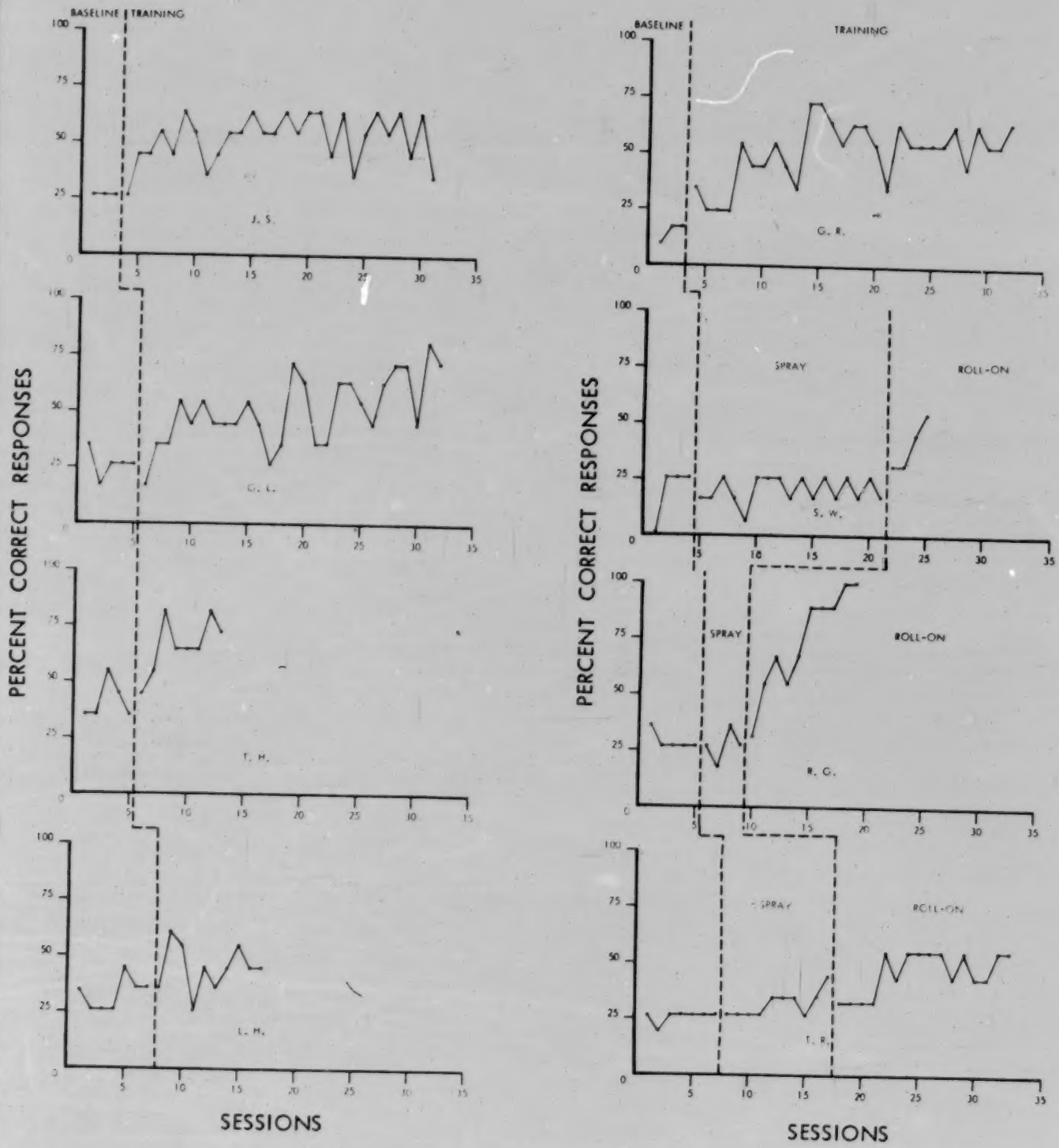

fingernail cleaning component has been subjected to field study. Preliminary results involving five subjects indicate moderate effectiveness of this program component. Program revisions are currently being made and an additional component, nail shaping, is under consideration.

APPROPRIATE MODE OF CLOTHING PROGRAM

In some respects simulated conditions are superior to natural settings because it is possible to gain better control. Simulation in the Appropriate Mode of Clothing Program involved the selection of "cut out" paper clothing and dressing of paper dolls. Field study of the developmental version of this program revealed that subjects were unable to associate "cut outs" with actual apparel, nonetheless achieving adequate levels of performance under simulated conditions. In short, the training strategy seemed successful, but there seemed to be strong indications that training would not generalize to actual apparel.

The program is currently undergoing revision. Revisions are focused on efforts to align the present training procedure with the task demands introduced by the use of actual clothes instead of paper "cut outs."

USE OF SANITARY NAPKINS PROGRAM

The Advisory Committee on Human Experimentation at Parsons State Hospital and Training Center has recently approved the field study of a developmental version of the Use of Sanitary Napkin Program under some restrictions. The scheduling of trainers and students to initiate field evaluations of this program has recently begun.

USE OF TELEPHONE PROGRAM

The task of writing functional instructional (behavioral) objectives for training telephone use has proven very demanding, if not difficult. Revisions are presently being made in an effort to minimize the language demands of the program and to "streamline" the overall format.

CARE OF SIMPLE INJURIES PROGRAM

The latest program in the design and development phase is the Care of Simple Injuries Program. Task analysis, design of training approach, and the development of loading charts were completed in this reporting period. One component of this program, putting on a bandaid, has been evaluated and tested informally during several workshops.

4. DISSEMINATION ACTIVITIES

See Media/Dissemination.

Lent (5)

5. CAPITAL EQUIPMENT ACQUISITIONS

1	AVF-3200, Viewfinder for AVC-3200		$175.00
		Total	$175.00

6. DATA COLLECTION

The basic program validation approach used by Project MORE in the last year has centered around "single subject" or "within subject" replication designs. Single subject performance indicates whether a program reliably affects behavior. Replication of single subject performance indicates the generality of such effects among other subjects. This approach indicates the precedence in the behavioral science literature. It also has a sound logical basis: it is wasteful to attempt to establish the generality of program effectiveness if one cannot demonstrate effectiveness with a single individual. Effectiveness may be isolated and specific to one individual. On the other hand, effectiveness may be general only. Both types of information are necessary in complete validation of a program.

Evaluation procedures used in field studies during this reporting period were of two basic designs: pretest-posttest comparisons and multiple baseline studies. The first, perhaps the most straightforward and basic, is a before-and-after training comparison. For the most part, pretest-posttest difference data reveal the overall effectiveness of a training procedure. Pretest-posttest data form the basic program validation information for the Ironing Program (see Lent/Significant Findings and Events). In this case the before-and-after training comparison is an adequate approach. In most units of the Ironing Program a minimal percent (0 to 11 percent) of the behaviors were performed correctly on the pretest. The chances of achieving significant gains on the posttest by nonexperimental factors alone (i.e., normal variability, maturation, coincidence) are relatively remote. That is, one can be reasonably assured that the gains are due to training. Nonetheless, while in this particular case we can have faith that the gains on the posttests were due to the program, the pre-post design does not preclude nonexperimental effects.

The procedure and source of program validation information for the ten programs, following the Ironing Program discussed in Lent/Significant Findings and Events, was and will be the multiple baseline study. The stringent requirements of the multiple baseline technique permit more confident statements of causality than those permitted by before-and-after comparisons. Indeed, it may be one of the most powerful experimental designs available to demonstrate that treatment or training effects are the producers of change. In this design baselines are established over several sessions for several subjects, providing a "base" against which changes can be evaluated. Once these baselines are established, the program is initiated with one subject while the others are maintained in the baseline condition. The program is then applied in turn to the other subjects. If there is a change in each of the subjects' performances at the point, and only at the point, where the program is initiated, strong evidence is built that the program and not coincidental variables are responsible for the change.

EVALUATION INSTRUMENTS

Figures 17 to 25 are samples of the instruments used in the monitoring, observation, and data collection in program training sessions.

Figure 17 BEST COPY AVAILABLE Lent (6)

Training Proficiency Scale

Project MORE
Mediated Operational Research for Education

Purpose: To evaluate proficiency in using Project MORE Programs.

Instructions: For each item rate the trainer/teacher on the five point scale below.

Trainer _____

Student (s) _____

Rater _____

Program _____

Date _____

(1) does not do it
(2) seldom does it
(3) does it about half the time
(4) does it most of the time
(5) does it every time
(N/A) does not apply

BEHAVIOR	RATING
Preparation	
1. Arrives promptly and consistently for training sessions.	
2. Prepares room before training.	
3. Has appropriate materials available.	
4. Brings program to training session.	
5. Greets student before training.	
6. Gets student's attention before training.	
Teaching Procedures	
7. Trains one step at a time.	
8. Trains steps in designated sequence.	
9. Gives opportunity for occurrence of behavior before intervention.	
10. Provides verbal cues only when opportunity (#9) fails.	
11. Provides visual cues only if verbal cues fail.	
12. Provides physical assistance only when visual and verbal cues fail.	
13. Allows adequate time for behavior to occur after each procedure.	
14. Determines appropriateness of behavior using Program behavior definitions.	

BEHAVIOR	RATING
Reinforcement	
15. Uses an effective reinforcer.	
16. Provides verbal or physical reinforcement immediately.	
17. Gives verbal reinforcement enthusiastically.	
18. Gives physical reinforcement enthusiastically.	
19. Varies verbal and physical reinforcement.	
General	
20. Ignores inappropriate behavior not interfering with training.	
21 Handles inappropriate interfering behaviors enabling resumption of training.	
22. Speaks in clear understandable tone of voice.	
23. Uses visual and verbal prompts enthusiastically.	
24. Uses student's name	
25. Interacts courteously with students.	
26. Displays interest in students progress.	

Figure 18

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IRONING PROGRAM

DATA SHEET (2)

UNIT TWO -- SPRAYING AND IRONING A FLAT PIECE

	First Trial	Second Trial	Third Trial
Step 1 -- Smooth the handkerchief			
2 -- Spray the handkerchief			
3 -- Iron the bottom edge			
4 -- Iron the left edge			
5 -- Iron the right edge			
6 -- Iron the top edge			
7 -- Iron the center			
8 -- Fold the handkerchief			
9 -- Iron the folded handkerchief			
10 -- Fold the handkerchief again			
11 -- Iron the second fold			
12 -- Fold the handkerchief again			
13 -- Iron the folded handkerchief			
14 -- Put the handkerchief away			

Student_____

Teacher_____

Date _____

Lesson Number_____

DATA SHEET

COMPLEXION CARE PROGRAM - NORMAL AND OILY SKIN

	Teacher provided NO CUES	Teacher provided VERBAL CUES	Teacher provided VERBAL AND VISUAL CUES	Teacher provided VERBAL, VISUAL AND PHYSICAL CUES
1. Turn on cold water				
2. Turn on hot water				
3. Adjust to warm water				
4. Wet face				
5. Pick up soap/cleansing grains				
6. Work soap into lather/pour grain				
7. Apply soap/grain to face				
8. Massage soap/grain on face				
9. Rinse hands and face				
10. Turn on hot water				
11. Rinse face with cold water				
12. Dry face				
*13. Apply astringent to cotton				
*14. Apply astringent to face				
15. Apply lotion to face				
16. Massage lotion on face				

* For oily skin only

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Figure 19 Lent (6)

Student_____

Teacher_____

Date_____

Lesson Number_____

DATA SHEET

NOSE BLOWING PROGRAM

	Teacher provided NO CUES	Teacher provided VERBAL CUES	Teacher provided VERBAL AND VISUAL CUES	Teacher provided VERBAL, VISUAL AND PHYSICAL CUES
1. Pull tissue from box				
2. Position tissue to nose				
3. Blow air through nose				
4. Pinch both nostrils closed				
5. Wipe away any mucus				
6. Fold tissue				
7. Position tissue to nose				
8. Blow air through nose				
9. Pinch both nostrils closed				
10. Wipe away any mucus				
11. Fold tissue				
12. Make final check				
13. Dispose of tissue				

Figure 20

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Student_____

Teacher_____

Date_____

Lesson Number_____

DATA SHEET

USE OF DEODORANT PROGRAM (ROLL-ON)

	Teacher provided NO CUES	Teacher provided VERBAL CUES	Teacher provided VERBAL AND VISUAL CUES	Teacher provided VERBAL, VISUAL AND PHYSICAL CUES
1. Pick up and hold deodorant dispenser				
2. Shake or tip dispenser				
3. Remove lid				
4. Position hand on dispenser				
5. Apply deodorant to underarm				
6. Change hands				
7. Position hand on dispenser				
8. Apply deodorant to underarm				
9. Replace lid				

Figure 21 BEST COPY AVAILABLE Lent (6)

Student_____

Teacher_____

Date_____

Lesson Number_____

DATA SHEET

USE OF DEODORANT PROGRAM (SPRAY)

	Teacher provided NO CUES	Teacher provided VERBAL CUES	Teacher provided VERBAL AND VISUAL CUES	Teacher provided VERBAL, VISUAL AND PHYSICAL CUES
1. Pick up and hold deodorant dispenser				
2. Shake dispenser				
3. Remove lid				
4. Position hand on dispenser				
5. Point spray opening at underarm				
6. Spray underarm				
7. Change hands				
8. Position hand on dispenser				
9. Point spray opening at underarm				
10. Spray underarm				
11. Replace lid				

Figure 22

BEST COPY AVAILABLE

Student_____

Teacher_____

Date_____

Lesson Number_____

DATA SHEET

HAIR WASHING PROGRAM

	Teacher provided NO CUES	Teacher provided VERBAL CUES	Teacher provided VERBAL AND VISUAL CUES	Teacher provided VERBAL, VISUAL AND PHYSICAL CUES
1. Comb or brush out tangles				
2. Turn on cold water				
3. Adjust for warm water				
4. Wet hair				
5. Apply shampoo to hands; rub together				
6. Rub hands all over hair				
7. Work soap into lather				
8. Rinse hair				
9. Apply shampoo to hands; rub together				
10. Rub hands all over hair				
11. Work soap into lather				
12. Rinse hair				
13. Towel dry hair				
14. Comb or arrange hair				
15. Clean up sink and floor				

Figure 23 BEST COPY AVAILABLE Lent (6)

Student_____

Teacher_____

Date_____

Lesson Number_____

DATA SHEET

HAND WASHING PROGRAM

	Teacher provided NO CUES	Teacher provided VERBAL CUES	Teacher provided VERBAL AND VISUAL CUES	Teacher provided VERBAL, VISUAL AND PHYSICAL CUES
1. Pull up sleeves/remove jewelry				
2. Turn on cold water				
3. Turn on hot water				
4. Adjust for warm water				
5. Wet hands				
6. Pick up soap				
7. Work soap into a lather				
8. Replace soap				
9. Scrub palms and backs of hands				
10. Scrub between fingers				
11. Scrub fingernails				
12. Rinse soap from hands				
13. Rinse sink				
14. Turn off water				
15. Dry hands				
16. Dry counter				
17. Hang up/dispose of towel				

Figure 24 BEST COPY AVAILABLE Lent (6)

Figure 25 Lent (6)

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DATA SHEET

NAIL CARE PROGRAM

NAIL CLIPPING (FINGERS)	Teacher provided NO CUES	Teacher provided VERBAL CUES	Teacher provided VERBAL AND VISUAL CUES	Teacher provided VERBAL, VISUAL AND PHYSICAL CUES
1. Open clippers				
2. Position clippers--Right				
3. Clip nail				
4. Position clippers--Left				
5. Clip nail				
6. Position clippers--Center				
7. Clip nail				
8. Switch clippers				
9. Position clippers--Left				
10. Clip nail				
11. Position clippers--Right				
12. Clip nail				
13. Position clippers--Center				
14. Clip nail				
15. Close clippers				
NAIL CLEANING (FINGERS)				
1. Turn on cold water				
2. Turn on hot water				
3. Adjust to warm				
4. Wet hands				
5. Wet brush				
6. Soap brush				
7. Scrub top of Nails--One hand				
8. Scrub end of Nails--One hand				
9. Scrub top of Nails--Other hand				
10. Scrub end of Nails--Other hand				
11. Rinse brush				
12. Rinse sink				
13. Rinse hands				
14. Turn off hot and cold water				
15. Dry hands				
NAIL CLIPPING (TOES)				
1. Open clippers				
2. Position clippers--Right				
3. Clip nail				
4. Position clippers--Left				
5. Clip nail				
6. Position clippers--Center				
7. Clip nail				
8. Switch clippers				
9. Position clippers--Left				
10. Clip nail				
11. Position clippers--Right				
12. Clip nail				
13. Position clippers--Center				
14. Clip nail				
15. Close clippers				

7. OTHER ACTIVITIES

Project related activities during this reporting period have resulted in extensive efforts to: 1) Exhibit Project MORE materials in an attempt to familiarize the trainers with Project products; 2) present workshops to give the participants simulated experience in using Project MORE programs; and 3) provide consulting services to integrate Project MORE materials into existing rehabilitation systems in various facilities throughout the country.

June 7 - The Instructional Media Analyst and the Workshop Director presented a workshop at the Staff Development Conference of the South Waterloo Association for the Mentally Retarded in Toronto, Canada.

June 13-16 - The Project Director, Assistant Director, Workshop Director, and a research assistant presented a workshop at the first Behavior Modification Symposium of the Elgin State Hospital, Elgin, Illinois. The symposium was designed to meet the expressed needs of Elgin State Hospital staff members who are involved in, or who anticipate involvement in, behavior modification training programs.

July 17-20 - The Project Director and the Instructional Media Analyst attended a Project Officers' Meeting at the Biological Sciences Curriculum Study in Boulder, Colorado. The meeting was held to write the first draft of a monograph outlining guidelines for curriculum developers who wish to make proposals through the Bureau of Education for the Handicapped.

August 14-15 - The Assistant Director made a presentation on "Performance Based Curriculum Development for the TMR" at an in-service program of the department of special education, Abilene Independent School District, Abilene, Texas.

- August 21 - The Workshop Director and the Director of Program Development presented a field test of the SEIMC/Project MORE workshop at the Lakemary Center in Paola, Kansas.
- August 21-23 - The Project Director and Instructional Media Analyst presented a workshop on Project MORE programs at the Veda Knox School in Arlington, Texas.
- September 4 - The Project Director and the Director of Program Development presented a workshop at the Kansas Neurological Institute in Topeka, Kansas.
- September 17-20 - The Project Director and Instructional Media Analyst conferred in Washington, D.C., with the Project Officer, and in New York, with John Dostal, market consultant.
- September 18-20 - The Project Director, Assistant Director, and Instructional Media Analyst met with other project officers at Yeshiva University at a follow-up meeting to the meeting held July 17-20 in Boulder, Colorado.
- September 18 - The Workshop Director and a research assistant presented a field test of the SEIMC/Project MORE workshop to the Lawrence public school district, Lawrence, Kansas.

8. STAFF UTILIZATION

During this reporting period, the curriculum materials staff remains divided into project teams, with one or more research assistants assigned to one or more programs under the supervision of either the Project Director, Assistant Director, or Director of Program Development.

Project staff members have continued to devote time to the monitoring of daily training sessions. A great deal of data on student performance, reliability of measurement instruments, trainer proficiency, and follow-up data has resulted from this approach.

Project MORE staff members have continued to serve as consultants for students and other professionals. The Project Director, Assistant Director, and Media personnel have served as faculty members and lecturers in Hospital In-Service Training Programs (HIST) and in the University Affiliated Facility (UAF) course titled, "Survey of Mental Retardation."

On August 1 Carol Foster assumed the duties of Director of Program Development following the resignation of Casper Ferneti. Bonnie Utley joined the curriculum materials staff July 17 as a research assistant to replace Kathy Moore. Vitae for Foster and Utley may be found in Appendix A.

Project staff members have been assisting the staff of Parsons State Hospital and Training Center in special education and therapy sessions as their other duties permit. This interaction has facilitated communication between the two staffs and has resulted in some expansion of the field tests to other areas and other types of students.

One staff member, Bonnie Utley, is also providing inservice training in behavior modification to the staff of the Title I grant. This interaction has made a pool of potential trainers available for Project MORE field testing.

9. FUTURE ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

See Continuation Proposal, October 15, 1973

1. MAJOR ACTIVITIES AND ACCOMPLISHMENTS DURING THIS PERIOD

The major activities of the Improved Instructional Technology for Articulation Therapy in Public Schools components of Project MORE during this reporting period have centered around the mediation of the final program products for the Stimulus Shift Articulation Program which has been validated for use in public school articulation therapy programs. These products include program manuals for eight phonemes, a procedures manual for application of the stimulus shift program, stimulus pictures needed for each phoneme program in two media formats--filmstrips and flash cards, data sheets for charting acquisition of the targeted phoneme behaviors, data sheets for recording the data from the beginning and ending probe test and for charting the progress through two optional probes included in the program, and an Articulation Progress Chart which is used to keep the child informed about his progress through the program.

PROGRAM REVISION AND PRODUCTION

Printed Materials. The preparation of these stimulus shift materials obviously represents a complex production process which has required considerable activity in every area of media preparation and production. The process has included complete revision of all previous program printed materials to incorporate the final program which was validated by research in the Parsons, Kansas, Public Schools. This revision includes:

1. Item analysis of all response words and sentences used in the programs to assure that the words in the programs have the highest probability of correct responding by children;
2. Rewrite of all materials included in the procedures manual which will guide the program user, and

3. Rewrite of all materials in the program materials including the statement of program-step purpose, stimulus delivery instructions to the therapist, description of the response topography required from the child, description of the reinforcement contingency in effect for the program step, response-criterion for the program step, and instructions for the coding of the data sheet for the program step.

Stimulus Materials. In addition to the revision of all written materials required in the program, the revision of each of the eight phoneme manuals have included the creation of all new stimulus pictures, developed specifically for the program. This development of stimulus materials, all original and specific to the program, has required the production of individual line drawings and eight conversation-evoking pictures plates, each one sound-loaded for evoking one of the eight training phonemes covered by the program.

All of the research on the stimulus shift program utilized 35mm slides of commercially available stimulus picture cards which were programed in slide trays for Kodak slide projector. This arrangement allowed for the rearrangement of all stimulus pictures as required for various program strategies which were being empirically tested in our research activities. At this point, however, the stimulus materials must be put into media forms other than the space-consuming, cumbersome slide format which had been necessary to implement our experimentation.

By creating all new materials, the program stimuli will now be available in two totally new formats which are far more functional for use in the schools. These new formats include: a) standard-size flash cards and b) filmstrips which can be presented through inexpensive film strip projectors.

Manual Formats. In addition to the revision of written materials and the production of all original line drawings of the required stimulus materials, the production of the final program manuals has included all new format designs for the program manuals themselves. In this process several new format designs were created and evaluated in terms of their clarity or ambiguity of program presentation and ease of physical management by the teacher.

Production Activities. The implementation of all of the revisions and materials production detailed previously has required activities in all areas of the Media operation (see Media/Major Activities and Accomplishments). Currently, this production process constitutes a primary activity of both the print and audiovisual components of Media Support Services.

The graphics department has completed work on the new stimulus cards in preparation for filmstripping and printing the flash cards. Graphics has also completed the cover designs for the program and is in the process of completing the paste-up of the manuals in preparation for printing. The data sheets and progress charts have been printed and padded and are ready for dissemination with the program.

The audiovisual component is currently making preparations for the filmstripping before sending the negatives to an outside firm to complete the work. Fifty copies of each filmstrip will be made for each of the eight phoneme sounds.

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2. PROBLEMS

The primary problems faced by this section of Project MORE have centered around personnel shortages in the speech pathology professional staff. See McLean/Raymore/Staff Utilization for specific details.

The only other problem is an insoluble one which results from the time necessarily required to revise and reproduce the new program materials. This production time, naturally, precludes further extensive research with the program in the areas which are most desirable. The needed research must be done with the revised program and new stimulus materials in order for the results to be generalizable to the situations to which they should be generalizable.

When production of the new program materials are completed, new validations of the program will be mounted with mentally retarded as well as normal-learning public school children in the public schools of Nashville, Tennessee.

3. SIGNIFICANT FINDINGS AND EVENTS

None

4. DISSEMINATION ACTIVITIES

No dissemination activities have taken place pending the availability of the newly-revised program materials. See Media/Dissemination Activities for information regarding negotiations with a new commercial disseminator.

5. CAPITAL EQUIPMENT ACQUISITIONS

None

6. DATA COLLECTION

No data has been collected since the last reporting period due to the summer vacations in the public schools.

7. OTHER ACTIVITIES

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None

8. STAFF UTILIZATION

This section of Project MORE has sustained some important staff problems. Sandra Raymore, a research assistant on this work since its inception, has left the staff to take a new position at the Behavioral Research Institute of Monterey, California. Her loss, plus the off-site status of James McLean, principal investigator of this section of the Project, will require major changes in Project MORE's activities in articulation programing.

Fortunately, during this period of the grant activities, the primary activities have been, as previously described, in the revision and redesign of the program manuals for final dissemination. In this activity Dr. McLean and Raymore have been able to work through all of the required decisions and problems effectively. They met for several days in Nashville, Tennessee, and the resulting decisions were implemented by the Media staff members. Since Raymore's departure late in July, Dr. McLean has monitored the production process through written and telephone contacts and through a four-day visit to Parsons where he met and worked with the Media staff. Any further activities required from the speech pathology dimension can and will be implemented by additional trips to Parsons by Dr. McLean.

In addition, Dr. McLean has received permission from the Project officer of USOE (John Davis) and the Project director in Parsons (Dr. James Lent) to employ professional staff in Nasvhille to carry out additional research activities during this grant period. At this date no additional staff has been added in Nashville, but Dr. McLean is interviewing and actively pursuing professional staff in that area who will be employed through Project MORE at Parsons.

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9. FUTURE ACTIVITIES PLANNED FOR NEXT REPORTION PERIOD

See Continuation Proposal, October 15, 1973

1. MAJOR ACTIVITIES AND ACCOMPLISHMENTS DURING THIS PERIOD

During this reporting period, the print/production component of Media Support Services has been involved in the preliminary and final mediation on several Project MORE programs. These programs include:

SHOWERING PROGRAM. The revised shower song was recorded on cassette tape by the audiovisual component of Media Support Services. The recording of the song was coordinated and supervised by print/production personnel.

FACE SHAVING PROGRAM. The Face Shaving Program was mediated in its final form and prepared for production. The visual format was redesigned to enhance the appearance of the program and the program was pasted-up in preparation for printing. It is currently ready to be printed and disseminated.

LEG AND UNDERARM SHAVING PROGRAM. The Leg and Underarm Shaving program was also mediated in final form and was put into the same new visual format as the Face Shaving Program. It has been pasted-up and is currently ready to be printed and disseminated.

TOOTHBRUSHING PROGRAM. The paste-up on the Toothbrushing Program was completed during the last reporting period. During this reporting period the program was printed and is currently in the dissemination process.

EATING SKILLS FOR DAILY LIVING PROGRAM. The Eating Skills For Daily Living Program went through an extensive reediting process and was type-set during this reporting period. It is currently ready for final paste-up in preparation for printing and dissemination.

COMPLEXION CARE PROGRAM. The Complexion Care Program is ready for final mediation during the next reporting period. Several editing processes took place during this reporting period, including combining several sections of the program for more cohesive presentation.

HAIR WASHING PROGRAM, NOSE BLOWING PROGRAM, AND HAND WASHING PROGRAM. These three programs are currently ready for final mediation.

CARE OF FINGERNAILS PROGRAM. The rough draft of the Care of Fingernails Program was prepared by the Media staff during this reporting period.

EDITORIAL INVOLVEMENT. In addition to their regular duties, the Media editors are participating in the testing sessions on the programs to which they are assigned. Weekly meetings are being held with the research assistants in order for the editors to keep abreast of testing results and revisions in the programs. In this manner the editors are able to become thoroughly familiar with the programs and to spot first-hand through the testing sessions what changes might be made to improve the programs.

STIMULUS SHIFT ARTICULATION PROGRAM. The final version of the Stimulus Shift Articulation Program manuals were delivered to the Media staff in mid-July. Final editing on the manuals has been completed, all copy for the manuals has been type-set, and rough paste-up has been completed on all eight manuals in the program. Format for the manuals has been completely redesigned and artwork has been completed for the manuals themselves.

The Media artist completed work on the drawings for the flash cards and filmstrips that go with each program. Approximately 400 picture presenting the stimulus materials were drawn. They have been pasted-up and are currently waiting to be printed.

In addition to the Stimulus Shift manuals, a procedures manual has been developed to accompany the program. The Media staff has been responsible for much of the writing and rewriting for the procedures manual. The format for the manual was designed by the Media artist, and the manual is currently awaiting final revision before production.

WORKSHOP MATERIALS. The workshop package, developed for Project MORE and the University of Kansas Special Education Instructional Materials Center, continued to be an important part of Media's activities during this quarter. Approximately 150 workshop packages, including notebooks for each participant, simulation materials, and brochures, were produced. The prototype of the new workshop package was printed by the Media staff. The participants' notebooks and the leaders' manuals were produced for the workshop director's use.

WORKING PAPERS. As in the past Media has taken a major role in the preparation for dissemination of working papers produced by the Parsons Research Project. Four working papers were printed during this reporting period, and major editing was completed on one of these. Working Paper #301, which was also printed during this period, is a result of research completed by the Media staff.

OTHER. Other printed products for Project MORE include data sheets, training proficiency scales, therapy schedules, training need checklists, behavior checklists, implementation schedules, catalog cards, identifier sheets, news and information release letterheads, program loading charts, and assorted graphs. Many of these products required artwork and editing, in addition to the printing.

Nonproject jobs completed during this reporting period include test cards for research personnel, film titles for the audiovisual component,

Title I evaluation reports, Hospital In-Service Training Program diplomas, and assorted data sheets and training schedules.

A major editing and writing project was completed for a book chapter being prepared by the Project Director and Instructional Media Analyst. The chapter will appear in a textbook being edited by Dr. Richard L. Schiefelbusch, director of the University of Kansas Bureau of Child Research.

AUDIOVISUAL. In an effort to develop refined materials for workshop presentations, the audiovisual component of Media Support Services has developed additional kinescopes of program development activities. These materials are used for demonstration of several daily living skill programs and have met with considerable success in workshop presentations. The participants seem to appreciate the "rough" quality of the kinescopes and equate that with believability of material content.

A new synchronous slide/tape presentation designed specifically for workshop presentation has been developed during this reporting period. It features the story of a trainable mentally retarded girl who benefits from the use of Project MORE daily living skill materials. The slide/tape presents the historical background of the Project, and demonstrates program development strategies.

Still photographic services for the Project have covered numerous activities and continue to be a necessary and integral requirement of the Project.

2. PROBLEMS

The problem concerning the dissemination of Project MORE programs mentioned in the May 31, 1973, progress report continues in this reporting period. The problem is caused by the ineffectiveness of the commercial disseminator, Psychologists and Educators, Inc. See Media/Dissemination for further information.

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3. SIGNIFICANT FINDINGS AND EVENTS

Not Applicable

4. DISSEMINATION ACTIVITIES

At this writing Project MORE has two of its instructional packages--The Hair Rolling Program and The Toothbrushing Program--in the dissemination stages. These two packages are being disseminated through the provisions of Project MORE's Copyright Authorization Agreement for "developmental" materials.

The University of Kansas Extramural Independent Study Center (EISC) is the primary disseminator for the Project MORE materials. EISC, in turn, subcontracted with Psychologists and Educators, Inc., Jacksonville, Illinois, as a secondary disseminator. As stated during the last reporting period (see Media, Problems, Quarterly Progress Report, May 31, 1973), the ability of Psychologists and Educators, Inc., to reach the consumers for whom the Project MORE materials are intended is questionable. As of yet, the Project has received no formal statement pertaining to the sales status of its programs from Psychologists and Educators, Inc. In addition, though supplied with a mailing list from Project MORE, Psychologists and Educators, Inc., has taken no noteworthy follow-up action. The University of Kansas has terminated the agreement with Psychologists and Educators, Inc., and as the grantee institution, is negotiating with Edmark Associates of Seattle toward a new and more comprehensive dissemination agreement.

During the last reporting period, the primary vehicle for dissemination has been the workshop. Project MORE and the University of Kansas SEIMC have collaborated on workshop activities with each organization paying one-half of the workshop director's salary. The workshops consist of two one-day sessions with a maximum of 18 participants who come as members of a trainable mentally retarded teacher-administrator team. Each team makes a precommitment to use a Project MORE program with their students and to train five

other TMR teachers in the area in which they live. (See Lent/Major Activities and Accomplishments for details)

To aid in the dissemination of materials and to inform interested persons and organizations, the Project recently published the first issue of *MORE News*, which is scheduled for publication on a quarterly basis. The newsletter will feature new programs, spotlight staff members and their backgrounds, discuss training procedures, and generally let the reader know what is going on at Project MORE. A copy of the newsletter may be found on the following pages.

In addition, a paper, *Bridging the Research-Consumer Gap: Systematic Procedures to Obtain Commercial Dissemination of Educational Materials*, was published as Working Paper #301 by Parsons Research Center. The authors of Working Paper #301 are Charles Cartwright, former program dissemination editor; Barbara M. McLean, instructional media analyst; and Dr. James R. Lent, Project director. Input for the paper was received from John Dostal, educational marketing consultant; Dr. Morton W. Bachrach, NIE Copyright Administrator; and Dr. Glenn S. Pfau, director, Project LIFE. Dr. Pfau's opinion was that Working Paper #301 "appears to be a comprehensive document and one that could be of significant value to other USOE sponsored contracts and grants that are producing instructional materials."

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A student nurse uses Project MORE's Toothbrushing Program to teach a young resident of Pareone State Hospital and Training Center

more news

October 1973 *Vol. 1, No. 1*

Quarterly publication

Project newsletter makes its debut

This is the first issue of Project MORE's *MORE News*. You have been put on the mailing list because at one time or another you have requested information about Project MORE, at a convention, because of information given to you by an associate, and so on.

Project MORE, which stands for Mediated Operational Research for Education, is a component of the University of Kansas Bureau of Child Research and is funded by USOE's Bureau of Education for the Handicapped. Directed by Dr. James R. Lent, Project MORE is based at the Parsons State Hospital and Training Center in Parsons, Kansas.

An outgrowth of Dr. Lent's Mimosa Project, Project MORE has been in existance for almost three years. The Project is developing training programs to teach mentally retarded children and adults how to perform daily living skills which will allow them to live with dignity in their home communities.

The Project's staff of research assistants and media specialists are developing programs which are validated in field tests with a trainable mentally retarded population. The programs are designed to be taught not only by special education teachers, but also by paraprofessionals and parents.

At the present time two of Project MORE's programs, the *Hair Rolling Program* and the *Toothbrushing Program*, are available on the commercial market. Three more programs, the *Face Shaving Program*, the *Leg and Underarm Shaving Program*, and the *Eating Skills for Daily Living Program*, will be ready for dissemination before the end of the year. Of the 11 remaining programs currently in various production stages, five will be ready for dissemination early in 1974.

The "right to education" concept: It's what's happening

In the fall of 1972, Edmark Associates reached the special education market with a reading program which had been nearly 12 years in development.

What lessons, if any, have been learned in one year of working with educators by a company that undertook the challenge of setting up a nationwide distribution organization? Norman L. Wherrett, our sales manager, and I have had scores of conferences, have been in daily contact with classroom teachers, and traveled over 80,000 miles to do workshops for over 7,000 teachers. My principal observation is that "right to education" is no longer simply a talked-about philosophy, but has some real teeth in it.

One of the ways in which the educator is being affected is in relations with commercial companies. The education community has never particularly welcomed the commercial sector, has seldom permitted the commercial firm any time on professional programs, has not had a user-oriented press evaluating commercial goods, and has dealt reluctantly with salesmen who call on them. Most of the publications on education conferences and endless meetings are devoted to providing an outlet to report creative efforts of individual teachers. The "publish or perish" system in higher education thrives on itself and does not welcome outsiders.

This is changing. The unanimous weight of opinion in court decisions across the country is that every student can learn. However, most teachers are unequipped to deal with students with problems. It is in this sector that the commercial company with validated materials has been well received.

Already the focus on right to education has attracted more publishers. Some are relabeling their material *Special Education*. They are going where the money is without any particular qualifications to serve the market. The implication for teachers is clear. Teachers must develop discrimination skills for selecting materials and asking appropriate questions of the salesmen who call on them. The vendor on his part must learn what goes on in classrooms. The vendor must become a co-professional serving the educational community as a full partner in the delivery of educational services. This includes a willingness and ability to go into the classroom with the teachers and show them how to do it.

When we have done our homework and become equipped to work with teachers, we have been welcomed. In fact, we have consistently been invited to return and the time pressures on our staff are becoming severe. We intend to continue our daily work at the classroom level.

We encourage educators to ask questions, and to share with us problems and criticisms so that we might address ourselves to them. Occasionally, we find that the way is still closed for us to work directly in the classroom, but this is relatively rare.

As teachers and publishers begin working more as team members and less as buyer/seller, both will benefit and the real winners will be students in the education system.

The "Right to Education" article was written for **MORE News** *by Gordon Bleil. Bleil is president of Edmark Associates, Inc., of Seattle, Washington.*

more news

Published quarterly by

Project MORE

(Mediated Operational

Research for Education)

OEG 0-71-0449(607)

BEH funded

Project MORE receives contract for book

Project MORE received a contract September 1, 1973, to write a book on "The Development and Dissemination of a Model for Program Development." The contract, in the amount of $12,844, was issued from USOE's Bureau of Education for the Handicapped through the National Center on Educational Media and Materials for the Handicapped at Ohio State University.

Under the direction of Dr. James R. Lent, Project MORE has been developing and producing validated instructional packages for the trainable mentally retarded for more than two years. The Project has established a distribution system for its products, including commercial outlets, which is designed to reach nationwide consumer markets effectively and efficiently.

The book will detail the Project's methods and procedures for program development explicating and illustrating each developmental stage. The target audience for the book will consist of all others who are charged with the production of instructional materials for the handicapped.

Members of the Project staff who will be involved in the writing of the book include Dr. Lent; Dr. Ingo Keilitz, assistant director; Barbara M. McLean, instructional media analyst in the Project's Media Support Services; Larry Thompson, director of audiovisual services; Dr. Richard L. Schiefelbusch, Bureau of Child Research director; and James F. Budde, BCR assistant director.

In addition to the authors, others prominent in the various disciplines which must cooperate in full-scale program development will act as reactors to the various chapters of the book.

BEH acts to establish guidelines

USOE's Bureau of Education for the Handicapped (BEH) is presently sponsoring a series of meetings involving curriculum developers receiving BEH funds. The purpose of the meetings is to develop "a plan for quality control to ensure that BEH is making and will continue to make effective decisions in funding curriculum projects," according to John E. Davis, BEH research coordinator. The developers invited to the meeting have set a goal to publish, in monograph form, a set of curriculum development guidelines for the education of the mentally retarded.

The ultra-modern, recently completed home of the Biological Sciences Curriculum Study (BSCS) in Boulder, Colorado, served as the site of the first meeting in July. The second meeting was held in September at Yeshiva University in New York City. The first draft of the monograph was completed at the first meeting. The draft was edited and revised in the interim, and a second draft was completed during the meeting in New York.

The developers and their staff members who attended the meetings include: Dr. Janet Wessel and Dr. Paul Vogel, representing the *Yes, I Can* series, Michigan State University; Dr. Herbert Goldstein and Dr. Phil Reiss, specializing in social sciences curricula, Yeshiva University; Dr. Henry Goodstein and Dr. Jack Cowley, representing Project MATH, University of Connecticut; Don Meyer, William Mayer, Ray Gromme, and Joe Steele, BSCS; John Davis, BEH research coordinator; and three representatives from Project MORE: Dr. James R. Lent, director; Dr. Ingo Keilitz, assistant director, and Barbara M. McLean, instructional media analyst.

Project MORE and ku/seimc collaborate on workshops

Workshops are one of the most effective vehicles for working with groups of persons in the field of mental retardation. With this in mind, Project MORE and the University of Kansas Special Education Instructional Materials Center (SEIMC) are cooperating in an effort to conduct a series of workshops to educate groups of teachers, aides, and parents in the purposes and methods of the programs being produced by Project MORE.

A prototype workshop package was developed and field-tested during the first several months of 1973. During the coming year the workshop director, Sandra Grafton, will be presenting a totally revised and replicable workshop to groups in the KU/SEIMC region--Iowa, Kansas, Missouri, Nebraska, North and South Dakota, and to certain groups under the Bureau of Indian Affairs.

These cooperative workshops will consist of two one-day sessions for each state in the SEIMC region. The first session will train teachers in the use of the programs. The teachers will then use the Project MORE programs for a period of four weeks. The second session will be held six weeks after the first. At this session the teacher-administrator teams involved in the workshops will discuss the problems and successes they encountered in using the programs, and will receive instruction on workshop procedures for training other TMR teachers to use the programs.

To date this new workshop has been presented at the Lakemary Center in Paola, Kansas, and for the Lawrence, Kansas, public school system. Workshops have been scheduled for Missouri, South Dakota, and other systems in Kansas.

In addition to these SEIMC workshops, workshops will be presented in March at the Association for Educational Communications and Technology convention in Atlantic City, New Jersey, and at the national Education Technology, Inc., convention in San Francisco, and in April at the national Council for Exceptional Children convention in New York.

Workshops are also being offered to other groups concerned with training the mentally retarded. For more information write Sandra Grafton, P.O. Box 290, Parsons, KS 67357.

Project MORE
P.O. Box 290
Parsons, KS 67357

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5. CAPITAL EQUIPMENT ACQUISITIONS

None

6. DATA COLLECTION

Not Applicable

7. OTHER ACTIVITIES

PARTICIPATION IN WORKSHOPS AND CONFERENCES

During this reporting period personnel in the print/production component participated in the following workshops and conferences:

June 7 - Barbara M. McLean, instructional media analyst, accompanied Sandra Grafton, workshop director, to Toronto, Canada, where they presented a workshop to the Staff Development Conference of the South Waterloo Association for the Mentally Retarded.

July 17-20 - Ms. McLean and Dr. James R. Lent, Project director, attended a Project Officers' Meeting at the Biological Sciences Curriculum Study (BSCS) in Boulder, Colorado. The meeting was held to write the first draft of a monograph outlining guidelines for curriculum developers who wish to make proposals through the Bureau of Education for the Handicapped.

July 17-20 - Shirley Lent, graphics artists, met with staff members of the BSCS to determine first-hand new graphics techniques which could be utilized in the production of Project MORE programs and materials.

July 25 - Ms. McLean and Dr. Lent met in Lawrence with Research Administration of the University of Kansas to discuss the possibility of securing Edmark Associates of Seattle, as the publisher of Project MORE materials.

August 21-23 - Ms. McLean accompanied Dr. Lent to Arlington, Texas, where they presented a workshop at the Veda Knox School.

August 31 - Ms. McLean and Dr. Lent met in Kansas City with John Dostal, Project MORE market consultant; Gordon B. Bleil, president of Edmark Associates; and Alex Lazzarino, director of the University of Kansas Extramural Independent Study Center, to discuss the publishing agreement.

September 17-20 - Ms. McLean and Dr. Lent conferred in Washington, D.C., with John Davis, Project officer, and in New York with Dostal.

September 18-20 - Ms. McLean, Dr. Lent, and Dr. Ingo Keilitz, assistant director, met with other project officers at Yeshiva University at a follow-up meeting to the meeting held July 17-20 in Boulder, Colorado.

8. STAFF UTILIZATION

Several staff changes have taken place during this reporting period:

Henrietta Wolverton resigned her position as MT/ST operator on June 20. That position was assumed by Beverly Clardy on August 1.

Charles Cartwright, program dissemination editor, resigned August 24 to continue his education. His position has not been filled.

Betty Nelick, writer/editor, resigned August 31 to accept a teaching and research position. Her position has not been filled.

Charles Long, graphics technician, resigned September 7. His position was filled September 10 by Ray Aronhalt.

All other positions in the print/production component of Media Support Services remain constant. Vitae for Aronhalt and Clardy may be found in Appendix A.

9. FUTURE ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

See Continuation Proposal, October 15, 1973

1. MAJOR ACTIVITIES AND ACCOMPLISHMENTS DURING THIS PERIOD

During this reporting period two of Project MORE's major systems were subjected to systems analysis. Systems analysis was applied to both the implementation system and the program system or educational product structure. The basis for the analysis was to determine the variance between these structures and actual operations. On the basis of information derived from the analysis, structures were modified on staff performance and educational products were modified.

During the spring reporting period (see Quarterly Progress Report, May 31, 1973) the design of functions or tasks within the implementation system had been modified. The purpose was to streamline the system in order to increase efficiency without sacrificing effect, i.e., quality of research and educational products. At that point modifications were made on paper, i.e., the implementation lattice, and communicated to the staff.

On the basis of a brief period of operational time, it was reported that time and resources could be reduced to increase per product efficiency by approximately 60 percent. It should be noted that the changes at this point were of a temporary nature and new functions were not firmly integrated. During this reporting period discrepencies were determined and administrative products, including a new implementation manual, were designed and partially developed.

In order to meet the demand for educational products concerned with areas other than personal skills, a new product structure was designed. Analysis of critical social and vocational skills was made and recorded on the program lattice. Consideration was given to all aspects of skills critical for transition into independent living. Now that the program

lattice has been modified, both the needs and the feasibility of product development are being analyzed. Loading charts are being developed to project time allocations and final product selection will be made on the basis of resulting information.

2. PROBLEMS

Problems encountered during this reporting period were due to changes in the implementation system and some turnover in staff. It was determined that development of a new manual was critical in order to control staff performance and provide direction to new staff. It is also highly probable that insufficient in-service training has been provided. For tasks and products needed to correct these problems see Budde, Continuation Proposal, October 15, 1973.

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3. SIGNIFICANT FINDINGS AND EVENTS

Not Applicable

4. DISSEMINATION ACTIVITIES

Not Applicable

5. CAPITAL EQUIPMENT ACQUISITIONS

None

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6. DATA COLLECTION

Not Applicable

7. OTHER ACTIVITIES

Not Applicable

8. STAFF UTILIZATION

Not Applicable

9. FUTURE ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

See Continuation Proposal, October 15, 1973

APPENDIX A

VITAE

RAYMOND ARONHALT

TITLE: Graphics Technician
Bureau of Child Research - P

Date of birth: May 1, 1944
Place of birth: Parsons, Kansas

Sex: Male
Present Nationality: American

Professional History:

Letterpress proofer, Sun Graphics, Parsons, Kansas, 1968-1971
Color cameraman, Harper House, Dallas, 1971-1973
Graphics technician, Media Support Services, Bureau of Child Research, University of Kansas, Parsons State Hospital and Training Center, Parsons, Kansas, 1973-present

BEVERLY C. CLARDY

TITLE: MT/ST Compositor
Bureau of Child Research - P

Date of birth: February 9, 1937
Place of birth: Wichita, Kansas

Sex: Female
Present Nationality: American

Professional History:

Policy Typist, Employers Mutual Casualty Co., Inc., Wichita, Kansas, 1954-1955
Mimeographer, Wesley Hospital, Wichita, Kansas, 1955-1956
Electrical and Electronic Draftsman, The Boeing Company, Inc., Wichita, Kansas, 1956-1962
Private Secretary, Federated Merchandisers, Inc., Wichita, Kansas, 1963-1966
Avionics Draftsman, Gates Learjet Corporation, Inc., Wichita, Kansas, 1968-1969
Travelers Typist, Bendix Corporation, Engineering Division, Kansas City, Missouri, 1971
Private Secretary, Federated Merchandisers, Inc., Wichita, Kansas, 1971-1972
Electrical and Electronic Draftsman, The Boeing Company, Inc., Wichita, Kansas, 1972
Order Processor, Power-Flame Division, Inc., Parsons, Kansas, 1972-1973
MT/ST Compositor, Media Support Services, Bureau of Child Research, University of Kansas, Parsons State Hospital and Training Center, Parsons, Kansas, 1973-present

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CAROL D. "Sunny" FOSTER

TITLE: Research Assistant
Bureau of Child Research - P

Date of birth: April 10, 1942 Sex: Female
Place of birth: New Brighton, Pennsylvania Present Nationality: American

Educational Experience:

Bachelor of Arts, Southern Methodist University, Psychology and Mathematics, 1964
Graduate work in the Department of Mathematical and Experimental Statistics, Southern Methodist University, and the Department of Behavioral Disabilities, University of Wisconsin

Professional History:

Research Assistant, Psychology Department, Southern Methodist University, 1961-1964
Research Director, University College, Southern Methodist University, 1964-1965
Child Welfare Aide, Department of Welfare, Jasper County, Missouri, 1965-1966
Research Assistant, Assistant Program Supervisor, Mimosa Project, University of Kansas Bureau of Child Research, Parsons State Hospital and Training Center, Parsons, Kansas, 1966-1969
Cottage Director, Training Coordinator, Dixon State School, Dixon, Illinois, 1969-1970
HIST Grant Instructor, Director, State Home and Training School, Pueblo, Colorado, 1970-1972
Teacher, North Aurora Center, North Aurora, Illinois, 1972
Director of Training, North Aurora Center, North Aurora, Illinois, 1972-1973
Research Assistant, University of Kansas Bureau of Child Research, Parsons State Hospital and Training Center, Parsons, Kansas, 1973-present
Supervisor of Program Development, Project MORE, University of Kansas Bureau of Child Research, 1973-present

Publications:

Foster, Carol D. Development of self-control. Kalamazoo, Michigan: Behaviordelia, in press.
Foster, Carol D., and Ray Foster. MRC Program #3: Toilet-training. Mental Retardation Center Behavior Modification Newsletter, April 1971, 2(2), 1-3.
Foster, Carol D., and Ray Foster. Program for Cyclic Instruction. Mental Retardation Center Behavior Modification Newsletter, March 1971, 2(1), 10-11.
Foster, Ray, and Carol D. Foster. MRC Program #1: Compliance training. Mental Retardation Center Behavior Modification Newsletter, March 1971, 2(1), 2-3.

Credits:

Foster, Carol D. Programming techniques: An individualized approach to inservice education. Paper presented at Behavior Modification Symposium, Lincoln State School, Lincoln, Illinois, May 1973.
Foster, Carol D. Control of maladaptive behaviors in a sheltered workshop setting. Paper presented at the Community Workshop Series at Singer Zone Center, Rockford, Illinois, January 1973.

CAROL D. "Sunny" FOSTER (Con't.)

Foster, Ray, and Carol D. Foster. The measurement of change in adaptive behavior. Paper presented to the South Central Region of the American Association on Mental Deficiency, 1967.

Supplemental Information:

Consultant, Sacred Heart Home, Pueblo, Colorado, 1971-1972

Fields of Major Scientific Interest:

Programing techniques in mental retardation

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BONNIE L. UTLEY

TITLE: Research Assistant
Bureau of Child Research - P

Date of birth: June 6, 1949
Place of birth: Aurora, Illinois

Sex: Female
Present Nationality: American

Educational Experience:

Bachelor of Arts, Barry College, Miami, Florida, English, 1970

Professional History:

Resident Living Instructor, North Aurora Center, North Aurora, Illinois, 1971-1972
Behavior Modification Technician, North Aurora Center, North Aurora, Illinois, 1972-1973
Director, Behavior Modification Inservice Training Program, North Aurora Center, North Aurora, Illinois, 1973
Research Assistant, University of Kansas Bureau of Child Research, Parsons State Hospital and Training Center, Parsons, Kansas, 1973-present

Publications:

Foster, Ray, et al. (B. Utley). North Aurora Center Code of Conduct. Milwaukee, Wisconsin: Unicare Health Services, 1973.